website:http://biz.LGservice.com
e-mail:http://www.LGEservice.com/techsup.html

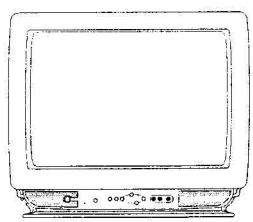
COLOR TV
SERVICE MANUAL

CHASSIS : MC-84A

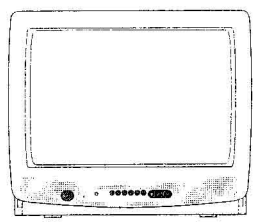
MODEL : CF-14/20/21F60/X CF-14/20/21F80X
CT/CF-14/20/21K50/52E/X /54ET
CT/CF-14/16/20/21S10E/X/12E

CAUTION
BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

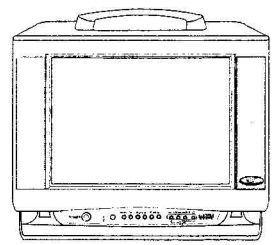
CF-20/21F60/X



CF-20/21F80X



CF-14/20/21K50/52EX



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SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by ⚠ in the Schematic Diagram and Replacement Parts List.
It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.
Do not modify the original design without permission of manufacturer.

General Guidance

An **Isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and it's components from being damaged by accidental shorts of the circuitary that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube**. Do not lift the Picture tube by it's Neck.

X-RAY Radiation

Warning:

The source of X-RAY RADIATION in this TV receiver is the High Voltage Section and the Picture Tube.
For continued X-RAY RADIATION protection, the replacement tube must be the same type tube as specified in the Replacement Parts List.

To determine the presence of high voltage, use an accurate high impedance HV meter.

Adjust brightness, color, contrast controls to minimum.
Measure the high voltage.
The meter reading should indicate
23.5 ± 1.5KV: 14-19 inch, 26 ± 1.5KV: 19-21 inch,
29.0 ± 1.5KV: 25-29 inch, 30.0 ± 1.5KV: 32 inch
If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

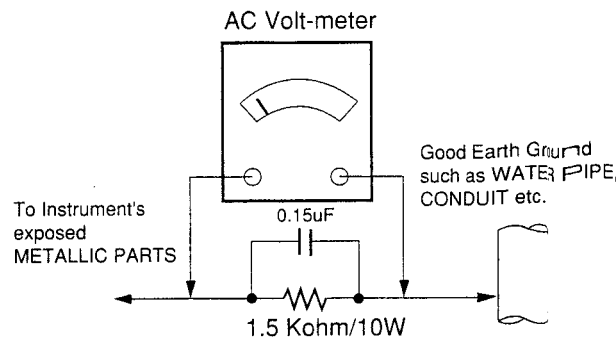
Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on positioin, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.
If the exposed metallic part has a return path to the chassis, the measured resistance should be between 1MΩ and 5.2MΩ.
When the exposed metal has no return path to the chassis the reading must be infinite.
An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.
Do not use a line Isolation Transformer during this check.
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.
Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.
Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each esposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which is corresponds to 0.5mA.
In case any measurement is out of the limits sepcified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the *SAFETY PRECAUTIONS* on page 3 of this publication.
NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
      CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
   d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".
3. Discharge the picture tube anode only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube anode button, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this receiver or any of its assemblies.
5. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
   CAUTION: This is a flammable mixture.
   Unless specified otherwise in this service manual, lubrication of contacts in not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
9. *Use with this receiver only the test fixtures specified in this service manual.*
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices.* Examples of typical ES devices are integrated circuits and some fieldeffect transistors and semicounductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficent to demage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a repalcement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the bruching together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintan tip temperature within the range or 500° F to 600° F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thorohly clean the surfaces to be soldered. Use a mall wirebristle (0.5 inch, or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature. (500° F to 600° F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
      CAUTION: Work quickly to avoid overheating the circuiboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500° F to 600° F)
   b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.

c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.
d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement
Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in parapraphs 5 and 6 above.

Removal
1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement
1. Carefully insert the replacement IC in the circuit boare.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor Removal/Replacement
1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device Removal/Replacement
1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement
1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicula y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement
1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair
Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections
To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections
Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involoves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.
CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

SPECIFICATIONS

Note:Specifications and others are subject to change without notice for improvement.

- **Power requirement:**
  AC 100-270V, 50/60Hz (Cold SMPS)
- **Tuning system:**
  VS (Voltage Synthesizer), 100 program memory
- **Sound output:**
  2.5W Typ.:5.0W Max, at 50KHz Deviation (Mono)
  12Wmax. X 2way
- **Control buttons on the TV:**
  Menu, OK, Vol+, Vol-, Pr+, Pr-
- **Intermediate Frequency (IF):**
  Vision IF ; 38.0MHz
  Color IF ; 33.57MHz(PAL)
  34.42MHz(NTSC)
  Sound IF ; 32.5MHz (B/G)
  32.0MHz(I, I/I)
  31.5MHz(D/K, K1)
  33.5MHz(M)
- **Power consumption :**
  14":70W(80W), 16":75W(85W), 20": 80W(90W), 21": 85W(95W)
  * ( ):Used Stereo Board.
- **Antenna input impedance :**
  VHF/UHF 75ohm , Unbalanced type
- **Voice coil impedance:**
  8ohm
- **OSD (On Screen Display) :**
  Menu method
  OSD Language option; English/other languages or English only
- **External in/output: Earphone, SCART or Phone Jack : Option**
  Audio-In ; 0.5Vrms±3dB, over 10Kohm
  Audio-Out ; 0.5Vrms±3dB, below 1Kohm
  Video-In/Out ; 1Vp-p±3dB, 75ohm
  R.G.B In ; 0.7Vp-p±3dB
- **Function:**
  Teletext(TOP/FLOF/LIST) ┐
  UBB(Ultra Bass Booster) │ Option
  CATV/Hyper band │
  Eye ┘
  Power ball game
  Auto Program
  Manual Program
  Auto Sleep
  Quick view
  Recall
  ACMS(Auto channel Memory System)
  PSM(Picture Status memory)
  CSM(Color Status memory)
- **Child Lock:**
  In the Lock on state the TV can only be operated by the Remote controller.
  If any button on the front panel is pressed, "CHILD LOCK ON" is displayed on the screen but the button's function is not performed.
  To cancel of this mode, select lock off with menu button on Remote control only.

- **Receiving System**

No	Model No. / System	CT-	CF-	CA-	CY-	CD- RF3.58	CZ-
1	PAL-B	O	O	O	X	O	O
2	PAL-G	O	O	O	X	O	O
3	PAL-I, I/I	O	O	X	O	O	O
4	PAL-D	O	O	X	X	O	O
5	PAL-K	O	O	X	X	O	O
6	SECAM-B	O	O	X	X	X	X
7	SECAM-G	O	O	X	X	X	X
8	SECAM-D	O	O	X	X	X	X
9	SECAM-K	O	O	X	X	X	X
10	SECAM-K1	O	O	X	X	X	X
11	SECAM-I (6.0)	O	O	X	X	X	X
12	SECAM-L (AV)	O	O	X	X	X	X
13	NTSC-3.58/4.5	O	X	X	X	O	X
14	NTSC-3.58/5.5	O	O	O	X	O	O
15	NTSC-3.58/6.0	O	O	X	O	O	O
16	NTSC-3.58/6.5	O	O	X	X	O	O
17	NTSC-3.58/4.5(50)	O	X	X	X	O	X
18	NTSC-4.43/5.5	O	O	O	X	O	O
19	NTSC-4.43/6.0	O	O	X	O	O	O
20	NTSC-4.43/6.5	O	O	X	X	O	O
21	PAL 5.5/60Hz	O	O	O	X	O	O
22	PAL 6.0/60Hz	O	O	X	O	O	O
23	PAL 6.5/60Hz	O	O	X	X	O	O
24	SECAM 5.5/60Hz	O	O	X	X	X	X
25	SECAM 6.0/60Hz	O	O	X	X	X	X
26	SECAM 6.5/60Hz	O	O	X	X	X	X
TOTAL SYSTEM		26	24	5	4	16	14

Table 1: Receiving System (26 System)

No	Receiving System	Function	Receiving Channel
1	**PAL-B**	Reception of broadcast and play-back for Video Tape Recorder	**VHF Band** PAL/SECAM-B : **2-12** PAL/SECAM-D : **1-12** SECAM-K1 : **2-9** NTSC-M (US) : **2-13** NTSC-M (JAPAN) : **1-12** **UHF Band** PAL/SECAM-G : **21-69** PAL-I : **21-69** SECAM-K : **21-69** PAL-K : **13-56** NTSC-M (US) : **14-78** NTSC-M (JAPAN) : **13-62**
2	**PAL-G**		
3	**PAL-I, I/I**		
4	**PAL-D**		
5	**PAL-K**		
6	**SECAM-B**		
7	**SECAM-G**		
8	**SECAM-D**		
9	**SECAM-K**		
10	**SECAM-K1**		
11	**NTSC-M**		
12	NTSC 4.43/5.5MHZ	Play-back for special Video Tape Recorder	
13	NTSC 4.43/6.0MHZ		
14	NTSC 4.43/6.5MHZ		
15	SECAM-I (6.0MHZ)		
16	SECAM-L (Video In)		
17	NTSC 3.58/4.5MHZ/50HZ	Play-back for special Video Tape/Video disk player	
18	PAL 5.5MHZ/60HZ		
19	PAL 6.0MHZ/60HZ		
20	PAL 6.5MHZ/60HZ		
21	SECAM 5.5MHZ/60HZ		
22	SECAM 6.0MHZ/60HZ		
23	SECAM 6.5MHZ/60HZ		
24	NTSC 3.58/5.5MHZ	Play-back for special Video Tape Recorder	
25	NTSC 3.58/6.0MHZ		
26	NTSC 3.58/6.5MHZ		

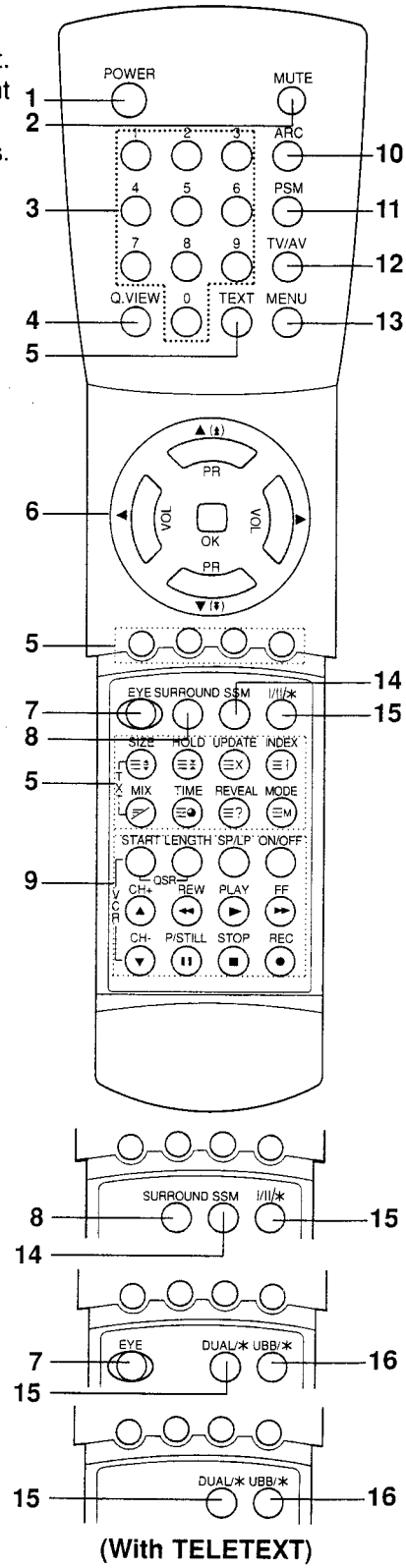
NOTE : CF/CT/CA/CY/CD - ****T - - FOR TELETEXT AND NICAM MODEL.
CF/CT/CA/CY/CD - ****N - - FOR NICAM MODEL.
CF/CT/CA/CY/CD - ****X - - FOR TELETEXT MODEL.
CF/CT/CA/CY/CD - ****E - - FOR EYE MODEL.

DESCRIPTION OF CONTROLS

Remote control handset

All the functions can be controlled with the remote control handset. Some functions can also be adjusted with the buttons on the front panel of the set.
Before you use the remote control handset, please install the batteries.

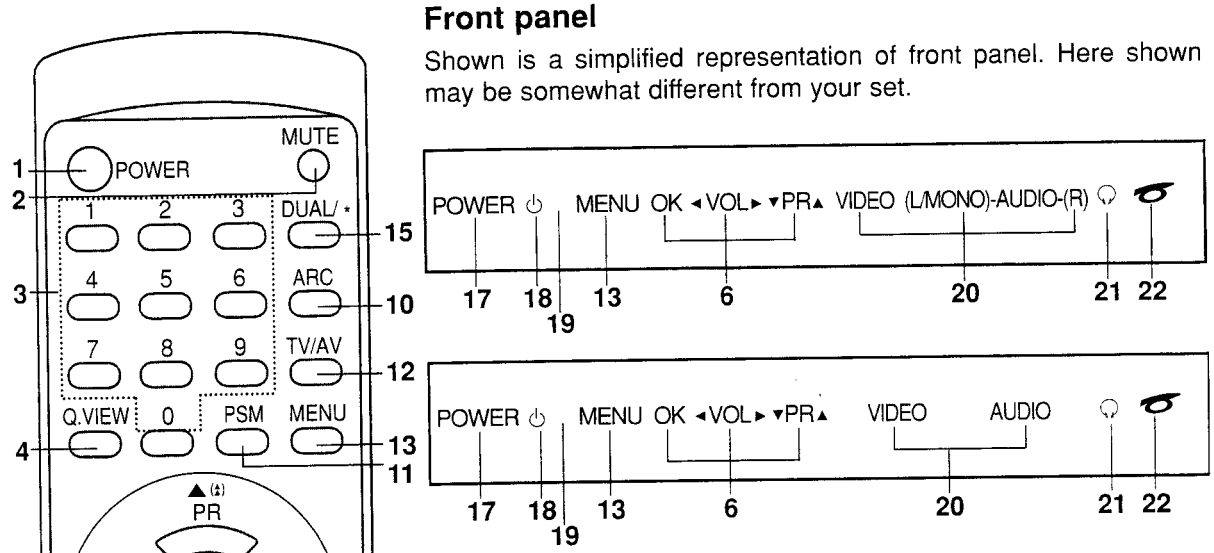
1. **POWER**
   switches the set on from standby or off to standby.
2. **MUTE**
   switches the sound on or off.
3. **NUMBER BUTTONS**
   switch the set on from standby or directly select a number.
4. **Q.VIEW**
   returns to the previously viewed programme.
5. **TELETEXT BUTTONS (option)**
   These buttons are used for teletext.
   For further details, see the 'Teletext' section.
6. **▲(+)/▼(-) (Programme Up/Down)**
   switches the set on from standby.
   selects a programme or a menu item.
   scans programmes automatically.
   ◄ / ► (Volume Down/Up)
   adjusts the volume.
   adjusts menu settings.
   OK
   accepts your selection or displays the current mode.
7. **EYE (option)**
   switches the Eye function on or off.
8. **SURROUND**
   selects surround sounds.
9. **VCR BUTTONS (option)**
   control a LG video cassette recorder.
10. **ARC (Aspect Ratio Control)**
    changes the picture format.
11. **PSM (Picture Status Memory)**
    recalls your preferred picture setting.
12. **TV/AV**
    selects TV or AV mode.
    clears the menu from the screen.
13. **MENU**
    selects a menu.
14. **SSM (Sound Status Memory)**
    recalls your preferred sound setting.
15. **I/II or DUAL/✳ (option)**
    selects the language during dual language broadcast.
    selects the sound output.

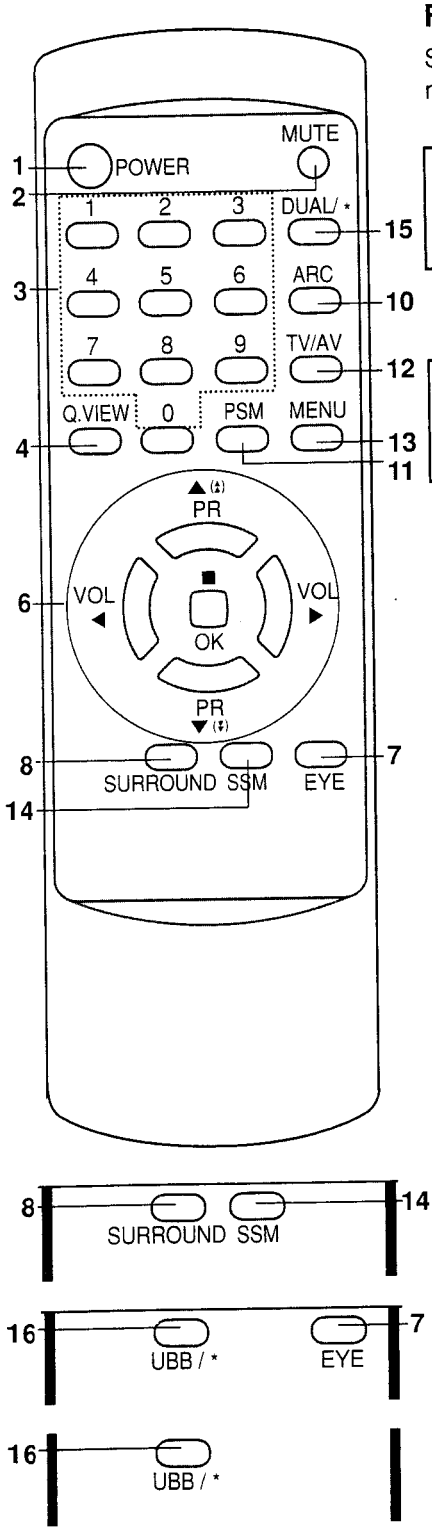


(With TELETEXT)

Front panel

Shown is a simplified representation of front panel. Here shown may be somewhat different from your set.





(Without TELETEXT)

16. UBB/✳(option)
switches the UBB sound on or off.

17. MAIN POWER
switches the set on or off.

18. POWER/STANDBY INDICATOR (⏻ /stand-by)
illuminates brightly when the set is in standby mode.
dims when the set is switched on.

19. REMOTE CONTROL SENSOR

20. AUDIO/VIDEO IN SOCKETS (AV2) (option)
Connect the audio/video out sockets of external equipment to these sockets.

21. HEADPHONE SOCKET (option)
Connect the headphone plug to this socket.

22. EYE (option)
adjusts picture according to the surrounding conditions.
Note : *Eye is an optional function. Only a set with the eye option can perform this function.*

Note :
✳*: No function.*

DISASSEMBLY INSTRUCTIONS

Important note
This set is disconnected from the power supply through the converter transformer. An isolating transformer is necessary for service operations on the primary side of the converter transformer.

Back Cabinet Removal
Remove screws residing on the back cabinet and carefully separate the back cabinet from the front cabinet..

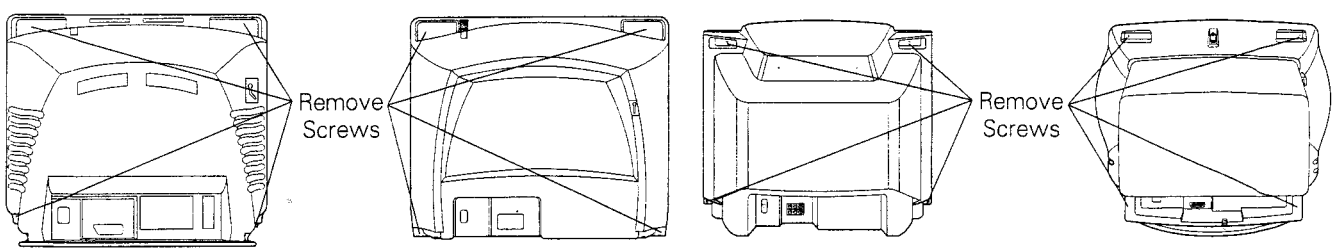
CPT Removal
1. Pull out the CPT board from the CPT neck.
2. Place the front cabinet on soft material not to mar the front surface or damage control knobs.
3. Remove 4 screws securing the picture tube mounting brackets to the front cabinet.
4. Carefully separate CPT from the front cabinet.

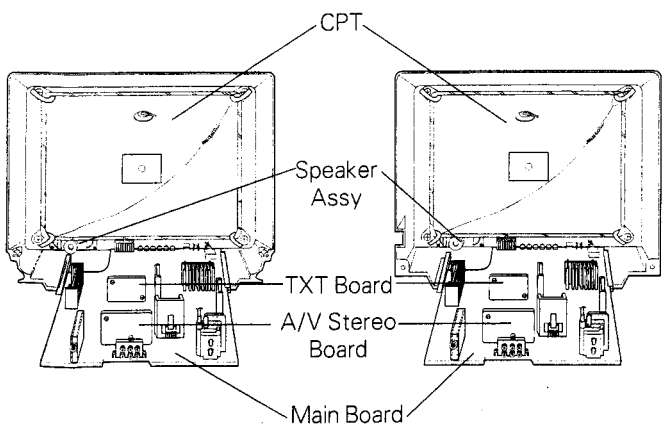
Chassis Assy Removal
Grasp both side of Frame and pull it backward smoothly.

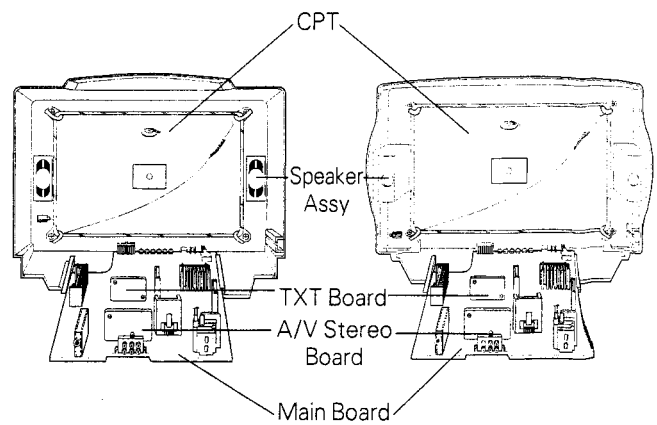
Speaker Assy Removal
1. Remove P601, P602 connector from Main Board.
2. Remove respective 2 screws for tweeter speaker(R, L) and 4 screws for squawker speaker(R, L) on the front cabinwet.
3. Refer ro Exploded View for disassembling woofer speaker in the back cover.

PICTURE TUBE HANDLING CAUTION
Due to high vacuum and large surface area of picture tube, great care must be exercised when handling picture tube. Always lift picture tube by grasping it firmly around faceplate.
NEVER LIFT TUBE BY ITS NECK! The picture tube must not be scratched or subjected to excessive pressure as fracture of glass may result in an implosion of considerable violence which can cause personal injury or property damage.

CF-20/21F60/X **CF-20/21F80X** **CF-14/20/21K50E/52E/X** **CF-14/16/20/21S10E/S12E/X**







ADJUSTMENT

□ Safety Precautions

1. It is safe to adjust after using insulating transformer between the power supply line and chassis input to prevent the risk of electric shock and protect the instrument.
2. Never disconnect leads while the TV receiver is on.
3. Don't short any portion of circuits while power is on.
4. The adjustment must be done by the correct appliances. But this is changeable in view of productivity.
5. Unless otherwise noted, set the line voltage to 230Vac± 10%, 50Hz.

□ Test Equipment required

1. RF signal generator (with pattern generator)
2. DC Power Supply
3. Multimeter (volt meter)
4. Oscilloscope
5. Color analyzer

● RF AGC (Automatic Gain Control) Adjustment

Test Point	**: AGC TP (J2)**
Adjust	**: Remote Control**

The RF AGC was aligned at the time of manufacture for optimum performance over a wide range conditions. Readjustment of RF AGC should not be necessary unless unusual local conditions exist, such as ;

1) Channel interference in a CATV system.
2) Picture bending and/or color beats, which are unusually due to excessive RF signal input when the receiver is too close to a transmitting tower or when the receiver is connected to an antenna distribution system where the RF signal has been amplified. In this case, the input signal should be attenuated (with pad or filter) to a satisfactory level.
3) Picture noise caused by "broadcast noise" or weak signal. If the broadcast is "clean" and the RF signal is at least 1mV (60dBu), the picture will be noise free in any area.

Adjusting RF AGC to one end of rotation will usually cause a relatively poor signal to noise ratio;
Adjusting to the other end of rotation will usually cause a degradation of over load capabilities resulting in color beats or adjacent channel interference.

Adjustment

1. Connect RF signal (60dB±1dB) and turn on the TV.
2. Press OK buttons on TV set and Remote Controller at the same time to get into SVC mode.
3. Press Channel UP/DOWN button on the Remote Controller several times to find AGC ??.
4. Press Volume UP/DOWN button until the AGC Voltage is the same as the Table below.
5. Press OK(■) button to memorize the data.

TUNER	6700VPF002A(ALPS)	6700VPF003B(LGEC)
AGC Voltage	3.5 ± 0.1V	2.7 ± 0.1V

● Screen Voltage Adjustment

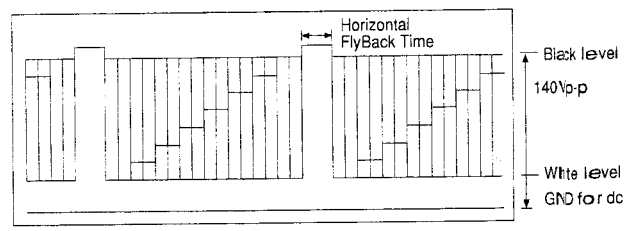
Test Point	**: RK (Red Cathode of CPT Board)**
Adjust	**: Screen Control of FBT**

1) Tune the TV set to receive a digital pattern.
2) Press PSM (RED) button on remote controller. (standard picture)
3) Connect the probe of oscilloscope to the RK (Red Cathode) of CPT Board.

※ Rk Test Point (TP)

CPT TYPE	Test Point	CPT LIST
HI-FO	TP1	LG 20", 21"
SNN	TP2	LG 14", ORION 14", 20", 21"

4) Adjust Screen Volume of FBT so that the waveform is the same as below figure.



The waveform of RK(Red Cathode) of CPT Board

● Focus Adjustment

NOTE: This adjustment should be performed after warming up for 10 minutes.

Test Point	**: Observing Display**
Adjust	**: Focus control of FBT**

1) Tune the TV set to receive an inactive channel station.
2) Adjust the Focus control of FBT for best overall focus.

● Deflection Data Adjustment (Line SVC-1)

NOTE: To enter SVC mode, press "OK" buttons on both TV set and the Remote control at the same time.

1. Preparation for Deflection Adjustment

1) At SVC mode, press the Yellow colored button.
   If the Remote Controller doesn't have the Yellow button, you should use a Service Remote Control (105-201G) and press SVC button.
   And then, deflection data adjustment OSD (SVC1 mode) will be displayed.
2) Press Channel UP/DOWN button for desirous function Adjustment.
3) Press Volume UP/DOWN button to adjust the data.

2. Deflection Adjustment Procedure

1) Vertical Adjustment
Slect VS and adjust until the mechanical center of CPT and that of screen coincides and select VA and adjust to coincide the inner circle of screen with outer frame of CPT.

2) Horizontal Adjustment
Select HS and adjust until the mechanical center of CPT and that of screen coincides.

3) Vertical S Correction Adjustment
Select SC and adjust until top-bottom side pincushion are equal.

4) Press OK(■) button to memorize the data.

● White Balance Adjustment.(LINE SVC-0)

NOTE : This adjustment should be performed after screen voltage adjustment.

1) Tune the TV set to receive an 100% white pattern.
2) Press OK(■) buttons on TV set and remote controller at the same time to get into SVC mode.
3) Press Channel UP/DOWN button for desirous function adjustment.
4) Adjust VOL+ or VOL- button for GG031.
5) Adjust VOL+ or VOL-button in each status of "Rg--"/"Bg--" for X=281±8, Y=288±8 with color analyzer.
6) Press OK(■) button to memorize the adjustment data.

Status	Adjustment	Range	Initial Data	Remark
RG	R-Drive	0~63	32	
GG	G-Drive	0~63	31	
BG	B-Drive	0~63	27	

● Hold Down check

Short J139 and ZD747 and check if the TV set turns into stand-by.

3. Deflection Initial Setup Data

Status	Default	21" LG	20" LG	14" LG	ORION 14"	ORION 16"	ORION 20"	ORION 21"
VL	34	34	34	34	34	34	34	34
VS	25	25	25	25	25	25	25	25
VA	43	43	43	43	43	43	43	43
HS	36	36	36	36	36	36	36	36
SC	10	10	10	5	5	5	5	5

● Stereo Amp Adjustment(LINE SVC-2)

* Real Stereo Model ONLY

Average ADJ. Data List		
FP	FM Prescaller	18
NP	Nicam Prescaller	72
SP	Scart Prescaller	40
SV	Scart Volume	55

* INABLE HOTEL TV(LIMIT VOLUME)

MAXVOL	1-100	

● OPTION Adjustment (SVC MODE:OPTION-1, OPTION-2)

NOTE: When the EEPROM has been replaced, the Option data should be restored as the function of individual system and specification.

1) Press OK buttons on both TV set and Remote Controller at the same time to get into SVC mode.
2) Press the Yellow button several times to find OPTION-1 or OPTION-2.
3) Input the correspond OPTION data referring to Table below with the numeric buttons 0~9.

Table 1. OPTION 1 Function

Option	Code	Function	Remark
SYSTEM	00	BG+I+DK	W/O RF 3.58(CF-, CZ-)
	01	BG+I+DK+M	with RF3.58(CT-, CD-)
	10	ONLY	Single SYSTEM(CA-)
	11	ONLY+DUAL	South East Asian DUAL
SCART	0	PHONO JACK (AV1)	
	1	SCART JACK (AV1)	with RGB Input
EYE	0	W/O EYE	
	1	with EYE	
UBB	0	W/O UBB	UBB for S-MAX(MONO) MODEL
	1	with UBB	
AV2	0	W/O AV2 (Front)	TOOL Option
	1	with AV2 (Front)	

Table 2. Specifications for OPTION-1 data

OPTION Data	SYSTEM	SCART	EYE	UBB	AV2
0	00	0	0	0	0
1	00	0	0	0	1
2	00	0	0	1	0
3	00	0	0	1	1
4	00	0	1	0	0
5	00	0	1	0	1
6	00	0	1	1	0
7	00	0	1	1	1
8	00	1	0	0	0
9	00	1	0	0	1
10	00	1	0	1	0
11	00	1	0	1	1
12	00	1	1	0	0
13	00	1	1	0	1
14	00	1	1	1	0
15	00	1	1	1	1
16	01	0	0	0	0
17	01	0	0	0	1
18	01	0	0	1	0
19	01	0	0	1	1
20	01	0	1	0	0
21	01	0	1	0	1
22	01	0	1	1	0
23	01	0	1	1	1
24	01	1	0	0	0
25	01	1	0	0	1
26	01	1	0	1	0
27	01	1	0	1	1
28	01	1	1	0	0
29	01	1	1	0	1
30	01	1	1	1	0
31	01	1	1	1	1
32	10	0	0	0	0
33	10	0	0	0	1
34	10	0	0	1	0
35	10	0	0	1	1
36	10	0	1	0	0
37	10	0	1	0	1
38	10	0	1	1	0
39	10	0	1	1	1
40	10	1	0	0	0
41	10	1	0	0	1
42	10	1	0	1	0
43	10	1	0	1	1
44	10	1	1	0	0
45	10	1	1	0	1
46	10	1	1	1	0
47	10	1	1	1	1
48	11	0	0	0	0
49	11	0	0	0	1
50	11	0	0	1	0
51	11	0	0	1	1
52	11	0	1	0	0
53	11	0	1	0	1
54	11	0	1	1	0
55	11	0	1	1	1
56	11	1	0	0	0
57	11	1	0	0	1
58	11	1	0	1	0
59	11	1	0	1	1
60	11	1	1	0	0
61	11	1	1	0	1
62	11	1	1	1	0
63	11	1	1	1	1

Table 3. OPTION 2 Function

Option	Code	Function	Remark
FFI	0	Normal Condition	Fast Filter IF-PLL
	1	FFI Active	(for excessive RF signal)
CHINA	0	W/O Chinese NICAM	Chinese Model only
	1	Chinese NICAM	
LANG.	M	Multi Language (M=0)	Language varies by
	E	English Only (E=1)	MICOM Part No.
HOTEL	0	W/O HOTEL	for Buyer 's request
	1	For HOTEL	
GAME	0	W/O GAME	POWER BALL
	1	With GAME function	

Table 4. Specifications for OPTION-2 data

OPTION Data	FFI	CHINA	LANG.	HOTEL	GAME
0	0	0	M	0	0
1	0	0	M	0	1
2	0	0	M	1	0
3	0	0	M	1	1
4	0	0	E	0	0
5	0	0	E	0	1
6	0	0	E	1	0
7	0	0	E	1	1
8	0	1	M	0	0
9	0	1	M	0	1
10	0	1	M	1	0
11	0	1	M	1	1
12	0	1	E	0	0
13	0	1	E	0	1
14	0	1	E	1	0
15	0	1	E	1	1
16	1	0	M	0	0
17	1	0	M	0	1
18	1	0	M	1	0
19	1	0	M	1	1
20	1	0	E	0	0
21	1	0	E	0	1
22	1	0	E	1	0
23	1	0	E	1	1
24	1	1	M	0	0
25	1	1	M	0	1
26	1	1	M	1	0
27	1	1	M	1	1
28	1	1	E	0	0
29	1	1	E	0	1
30	1	1	E	1	0
31	1	1	E	1	1

● HOTEL TV Mode

NOTE: This mode is useful for HOTEL TV MODEL. Dealer or HOTEL manager can use this option.
HOTEL TV FUNCTION has two powerful function

1. AFTER SELECTING HOTEL MODE, CAN NOT CHANGE INITIAL SET UP CONDITION.

- CHANNEL PROGRAM(AUTO PROGRAM, MANUAL PROGRAM, EDIT FUNCTION) and OSD LANGUAGE set up condition is fixed so the HOTEL lodger cannot change and remove initial set up data condition at his pleasure.
  This function prevents HOTEL lodger from needless changing channel memory data and OSD language condition.
  It will be helpful for maintainning the best suitable condition of TV SET

2. Limit MAX. VOLUME LEVEL.

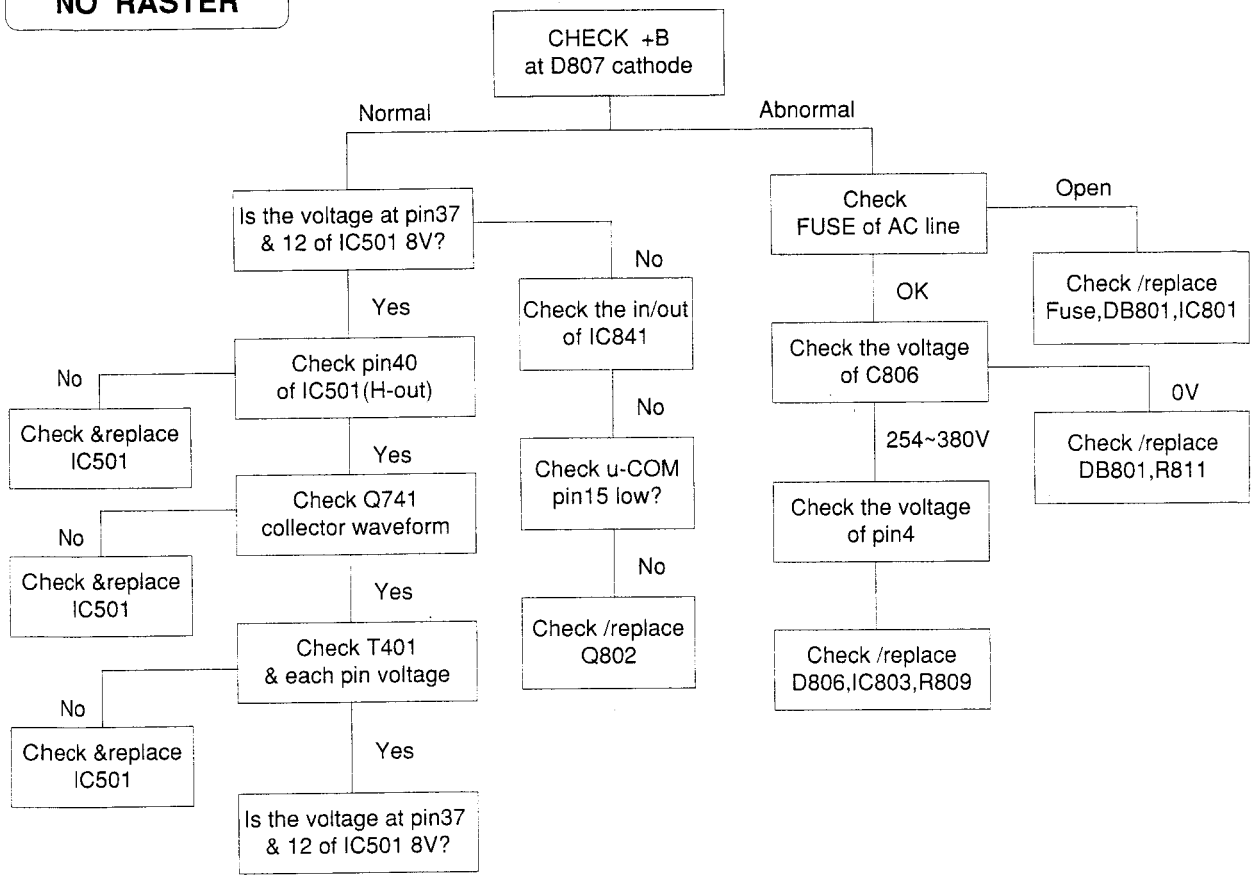
- The HOTEL lodger can only use limited range of volume level because loud TV sound can disturb other lodger's private business.
  The HOTEL manager select maximum volume level proper for HOTEL.

▶ HOTEL mode operating guide

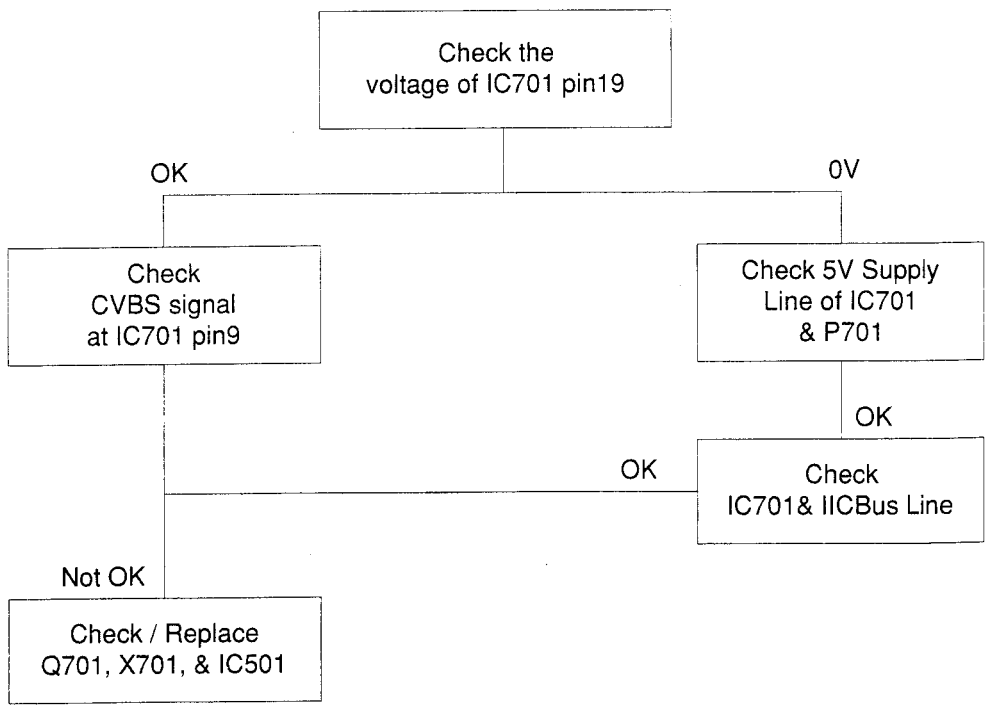
① SET UP(CH.SEARCH AND EDIT) the Channel Program
② SET UP Proper max volume level in SVC Mode.
③ SET UP HOTEL option in SVC Mode(OPTION-2).

TROUBLESHOOTING

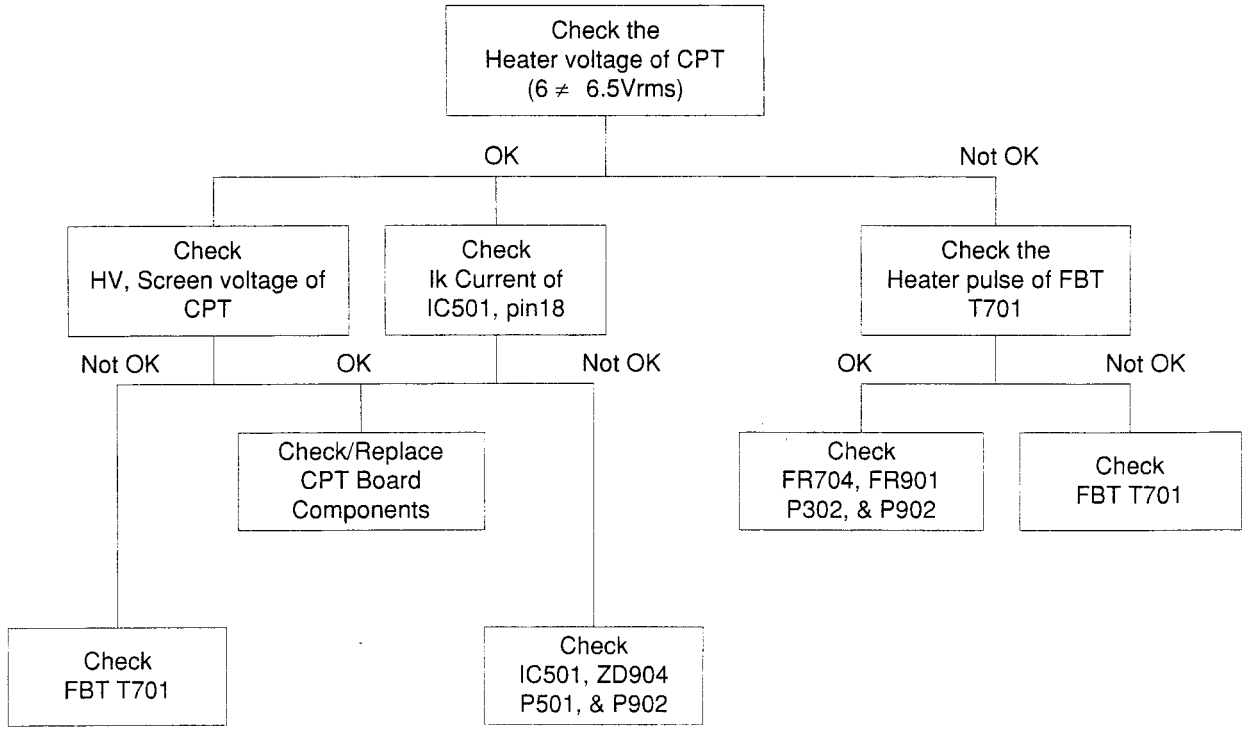
NO RASTER



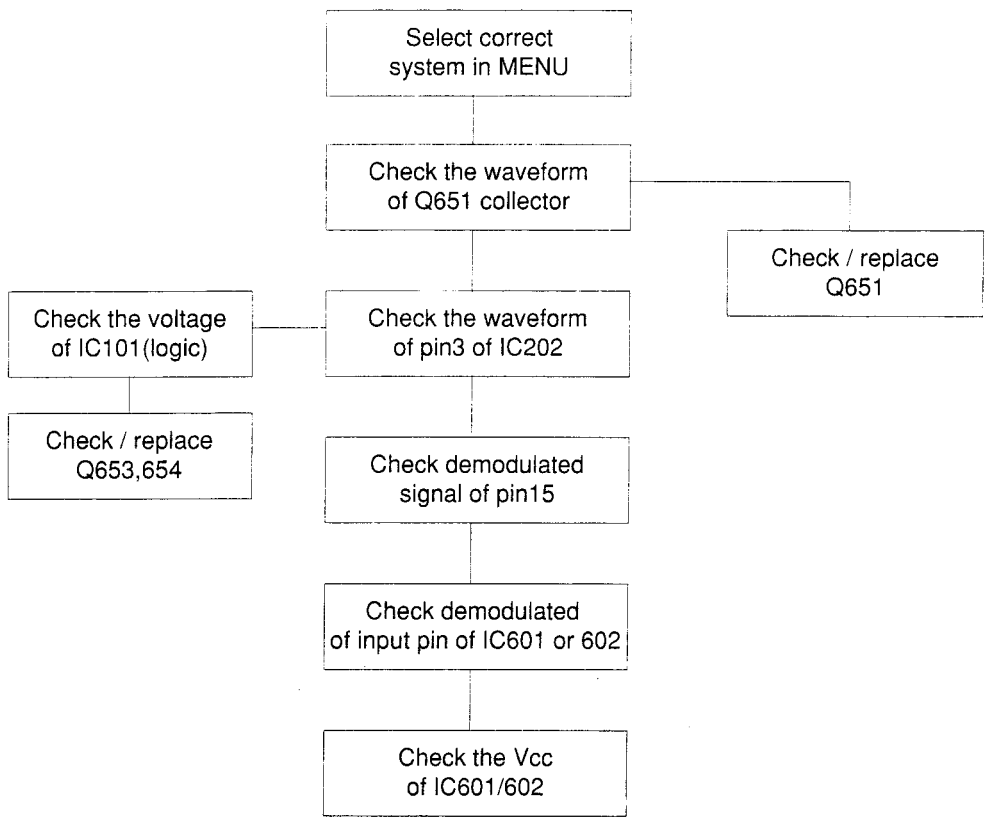
NO TELETEXT



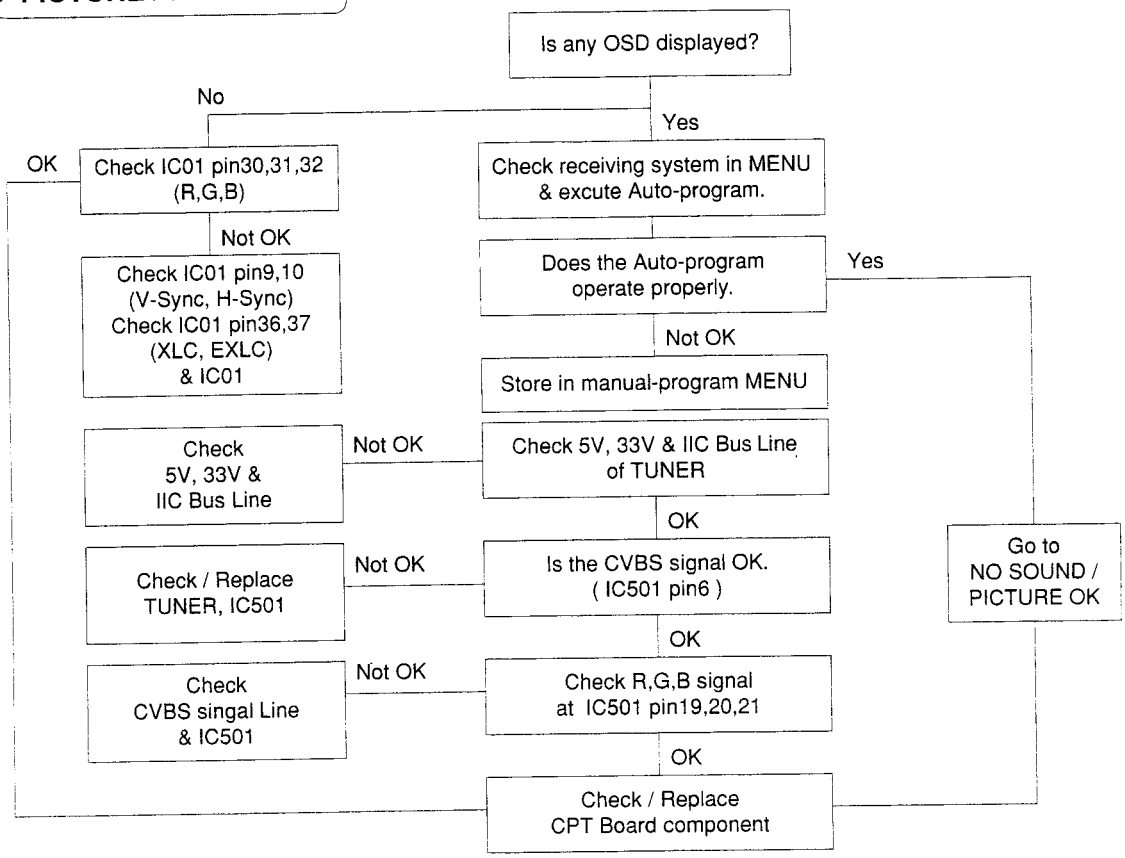
NO RASTER / SOUND OK



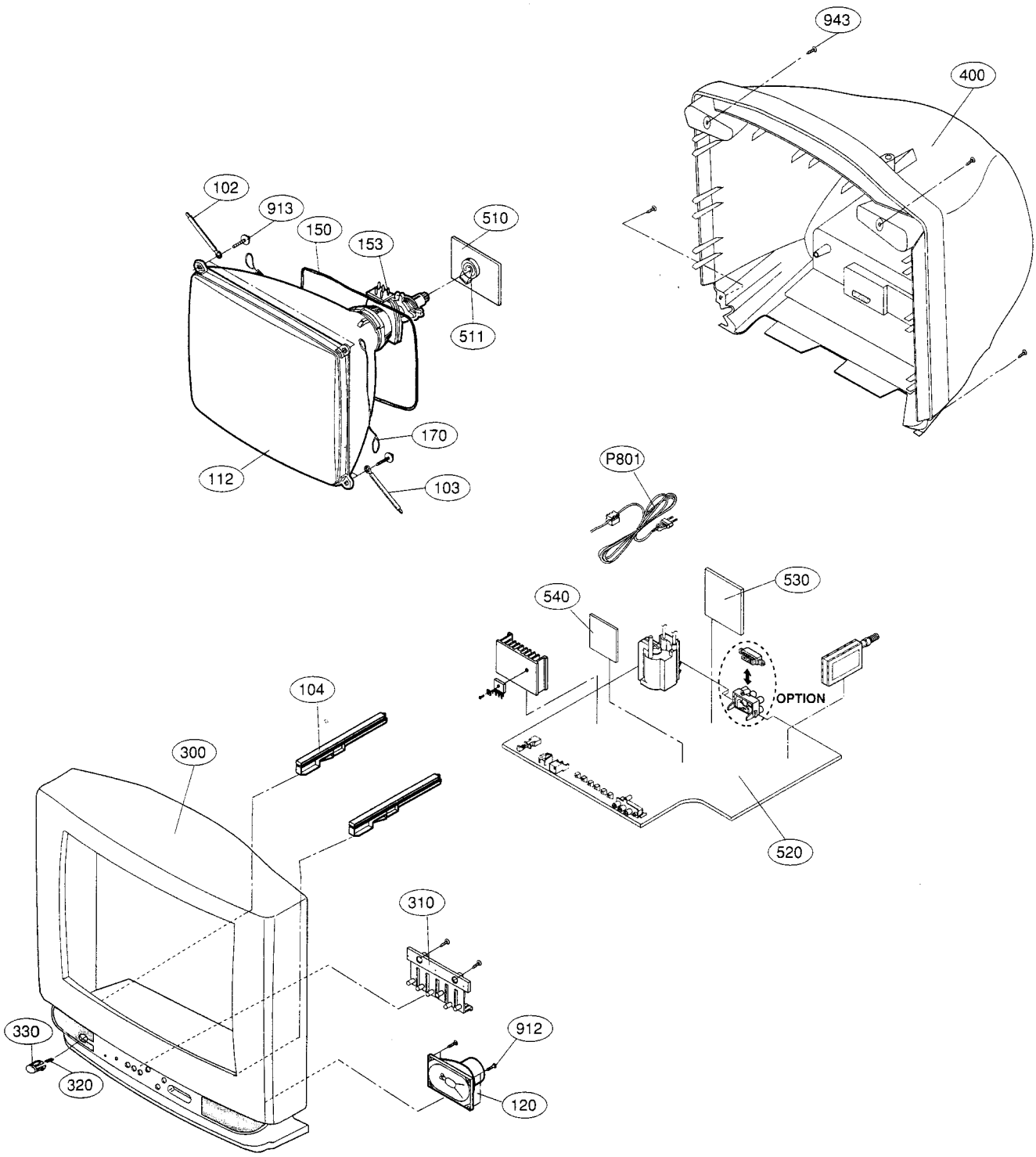
NO SOUND / PICTURE OK



NO PICTURE / NO SONUD


Is any OSD displayed?
No
Yes
OK
Check IC01 pin30,31,32 (R,G,B)
Check receiving system in MENU & excute Auto-program.
Not OK
Check IC01 pin9,10 (V-Sync, H-Sync) Check IC01 pin36,37 (XLC, EXLC) & IC01
Does the Auto-program operate properly.
Yes
Not OK
Store in manual-program MENU
Check 5V, 33V & IIC Bus Line
Not OK
Check 5V, 33V & IIC Bus Line of TUNER
OK
Check / Replace TUNER, IC501
Not OK
Is the CVBS signal OK. (IC501 pin6)
Go to NO SOUND / PICTURE OK
OK
Check CVBS singal Line & IC501
Not OK
Check R,G,B signal at IC501 pin19,20,21
OK
Check / Replace CPT Board component

EXPLODED VIEW(CF-14/20/21F60/X)



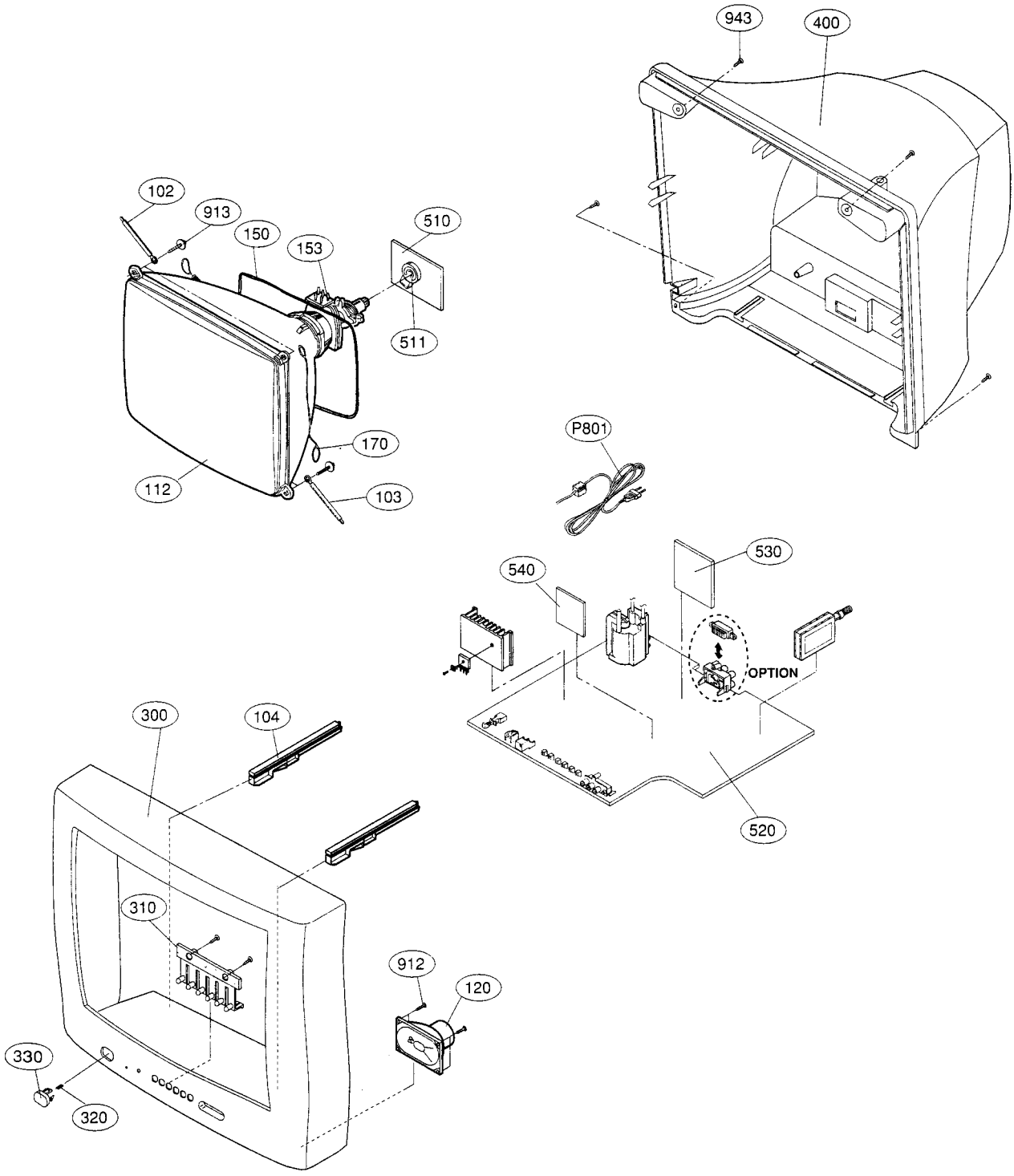
EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

NO	PART NO	DESCRIPTIONS
102	341-721E	HOLDER,D-COIL(FOR SAFA,L=65)
	341-721A	HOLDER,D-COIL(FOR AUTO,L=65)14"
103	341-721F	HOLDER,D-COIL(FOR SAFA,L=130)
	341-721B	HOLDER,D-COIL(FOR AUTO,L=130)14"
104	343-B52A	SUPPORTER,PCB
⚠ 112	6335V20002B	CPT ASSY A48JLL90X(ORION)
	6335V14005B	CPT ASSY 37SX110Y22(EDI 14") *BROTHERS
	2055-V1221H	CPT,A48QAD220X 03T7ND
	2055-V1221C	CPT,A48QAD220X 03M7ND (+0.3G)
	2055-V1221A	CPT,A48QAD220X 03L7ND (+0.5G)CIS
	2055-V0674C	CPT,A51KPD12XX 14L7KR (+0.5G)CIS
	2055-V0672Q	CPT,A51KPD12XX 14M7KR (+0.3G)
	2055-V1221G	CPT,A48QAD220X 03R7ND (-0.1)H.POINT
	112-C20S(*)	CPT SET A48ECR141X(S/S DARK W/ITC)
	2055-00741V	CPT,A34KPU02XX 31N7ND LGEPL 14"
120	120-C93G	SPEAKER,GENERAL C091P06K1459 8OHM 5/
	120-D04J	SPEAKER,C072P01K1458 8OHM 14"
⚠ 150	150-D02M	COIL,DEGAUSSING,CU 20" 60T 15OHM
	150-D02B	COIL,DEGAUSSING,CU 14" 42T 5.7OHM
	150-D02T	COIL,DEGAUSSING 21"
⚠ 153	153-276A	DY DCAMI-20PLAA
	6150V-1002C	DY 0DY-M2007(ORION)
	153-110F	DY DCANI-21FSAA
⚠ 170	170-A01J	CPT EARTH (20,21")
	170-A01L	CPT EARTH (14")
300	3106V00055B	CABINET ASSY,20" LG
	3106V00055F	CABINET ASSY,20" GS
	3106V00054B	CABINET ASSY,21" LG
	3106V00054E	CABINET ASSY,21" GS
	3106V00067C	CABINET ASSY,14" LG
310	5020V00181B	BUTTON,CONTROL 21"
	5020V00181A	BUTTON,CONTROL 21" CIS
	5020V00174B	BUTTON,CONTROL 20"
	5020V00174A	BUTTON,CONTROL 20" CIS
	5020V00204B	BUTTON,CONTROL 14"
320	320-070U	SPRING,COIL(D4.8*L15)
	320-062H	SPRING,COIL 14"
330	5020V00182B	BUTTON,POWER 21"
	5020V00182A	BUTTON,POWER 21" CIS
	5020V00175B	BUTTON,POWER 20"
	5020V00175A	BUTTON,POWER 20" CIS
	5020V00205A	BUTTON,POWER 14"
400	3809V00079B	BACK COVER ASSY
	3809V00079G	BACK COVER ASSY SCART
	3809V00095G	BACK COVER ASSY SCART(14")
	3809V00095B	BACK COVER ASSY PHONO JACK(14")
⚠ 511	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE

NO	PART NO	DESCRIPTIONS
520	6871VMM206B	PWB ASSY,MAIN (84A) [01,05] 20" W.R.S, H.POINT
	6871VMM254R	PWB ASSY,MAIN (84A) [01,01] 14"BROTHERS
	6871VMM209P	PWB ASSY,MAIN (84A) [01,01] 21"BROTHERS
	6871VMM209N	PWB ASSY,MAIN (84A) [01,01] 20"BROTHERS
	6871VMM205R	PWB ASSY,MAIN (84A) [09,01] 21"ELECTRA
	6871VMM205Q	PWB ASSY,MAIN (84A) [09,01] 20"ELECTRA
	6871VMM205Y	PWB ASSY,MAIN 1(84A) [09,01] 20"LEBTRONIC
	6871VMM158W	PCB ASSY,MAIN [01, 01] 20"CIS
	6871VMM206A	PCB ASSY,MAIN [01, 01] 21"CIS
	6871VMM219G	PCB ASSY,MAIN1 [01, 01] 20" CIS ORION
	6871VMM229U	PWB ASSY,MAIN [01, 01] 20" CIS (W/TXT)
	6871VMM229T	PWB ASSY,MAIN [01, 01] 21" CIS (W/TXT)
	6871VMM278E	PWB ASSY,MAIN [09, 01] 20" LGEPL
	6871VMM278F	PWB ASSY,MAIN [09, 01] 20" LGEPL(W/TXT)
	6871VMM278H	PWB ASSY,MAIN [09, 01] 14" LGEPL
	6871VMM278J	PWB ASSY,MAIN [09, 01] 14" LGEPL(W/TXT)
540	6871VSM201B	PWB ASSY, TXT
	6871VSM251F	PWB ASSY, TXT P/H
912	1PWG0302816	SCREW,TRUSS HEAD D3 L12
913	332-057B	SCREW ASSY,HEXAGON HEAD
943	1PPF0403116	SCREW,PAN HEAD D4 L16
⚠ P801	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0
	6410VEH001C	CORD,POWER

EXPLODED VIEW(CF-14/20/21F80X)



EXPLODED VIEW PARTS LIST

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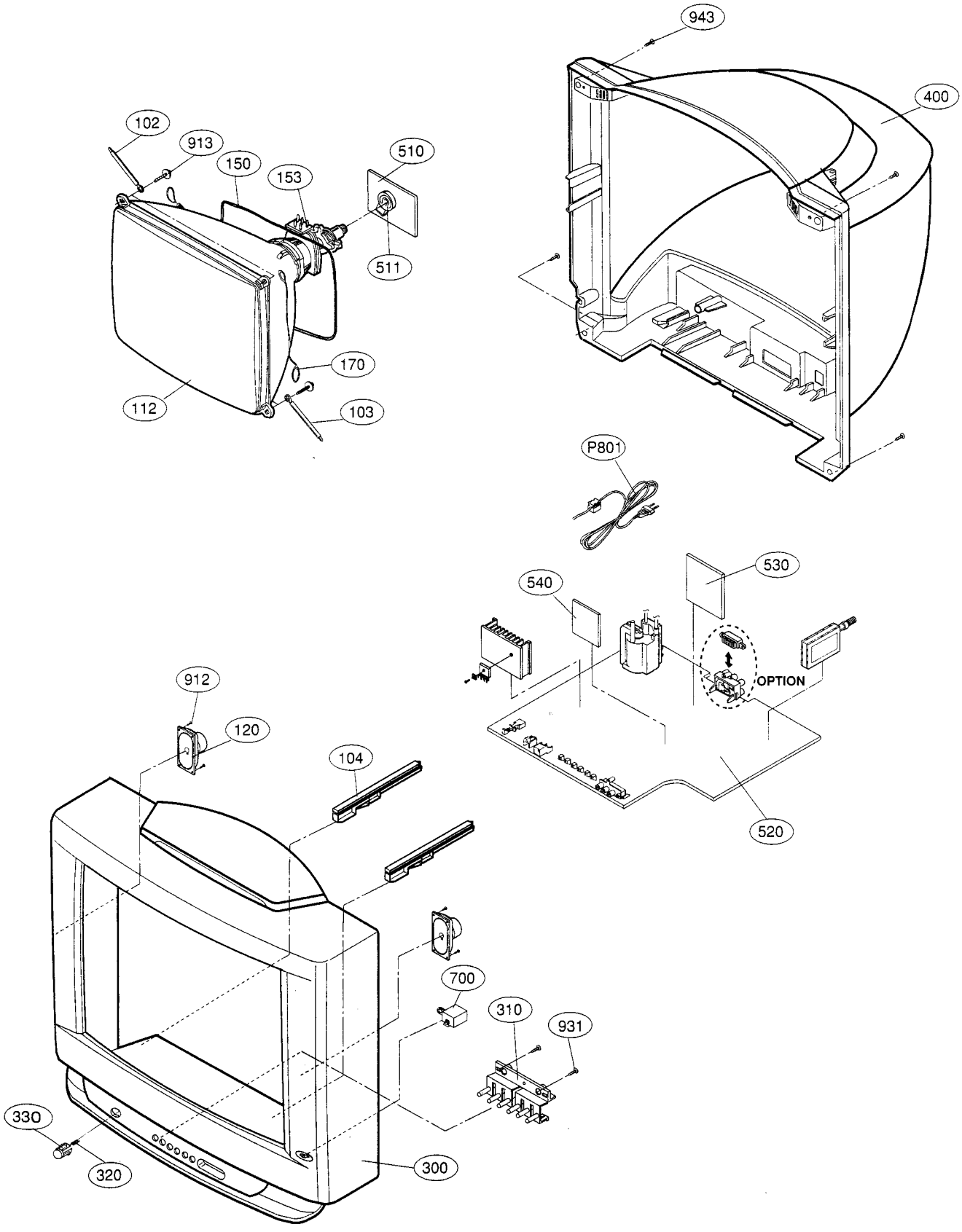
LOCA. NO	PART NO	DESCRIPTIONS
102	341-721E	HOLDER,D-COIL(FOR SAFA,L=65)
103	341-721F	HOLDER,D-COIL(FOR SAFA,L=130)
104	343-B52A	SUPPORTER,PCB
⚠ 112	2055-V0674C	CPT A51KPD12XX 14L7KR
	112-C21G	CPT A51EER131X29 21" MA-PL
	2055-V1221C	CPT A48QAD220X 03M7ND(+0.3G)
	2055-V1221G	CPT A48QAD220X 03R7ND(-0.1G)
	2055-V1221A	CPT SET A48QAD220X 03L7ND(+0.5)*CIS
	6335V20002B	CPT ASSY A48JLL90X (ORION)*CIS
	2055-00746J	CPT A34KPU02XX AOL7ND(+0.5) 14" CIS
	2055-01221B	CPT A48QAD220X 03N7ND 20" ROMANEL
120	120-C93G	SPEAKER,GENERAL C091P06K1459 8OHM 5/
	120-D04C	SPEAKER C072P(80HM) 14"
⚠ 150	150-D02B	COIL,DEGAUSSING ,CU 14" 42T 5.7OHM
	150-D02T	COIL,DEGAUSSING ,AL 21" 56T 12 OHM
	150-D02M	COIL,DEGAUSSING ,CU 20" 60T 15 OHM
⚠ 153	153-110F	DY DCAN1*110F-21FSAA
	6150V-1002C	DY 0DY-M2007(ORION)
	153-276A	DY DCAM1*110F-20PLAA
⚠ 170	170-851B	LEAD SET ASSY,CPT EARTH(L=640)
	170-A01L	LEAD SET, CPT EARTH 14" 32T
300	3106V00061C	CABINET UNIT,CF-21F80 LPLRR MULTI SYSTEM BK
	3106V00050B	CABINET UNIT,CF-20F80 MPGRT GS
	3106V00050G	CABINET UNIT,CF-20F80 LPLRR
	3106V00050E	CABINET UNIT LG
	3106V00056D	CABINET UNIT, CF-14F80 LPLRR
310	5020V00171A	BUTTON,CONTROL,CF-21F80
	5020V00179B	BUTTON,CONTROL,CF-20F80 GRAY
	5020V00179C	BUTTON,CONTROL,CF-20F80 BLACK
	5020V00207A	BUTTON,CONTROL 14"
320	320-062E	SPRING,KNOB
	320-062J	SPRING,KNOB 14"
330	5020V00170A	BUTTON,POWER,CF-21F80
	5020V00180B	BUTTON,POWER,CF-20F80 GRAY
	5020V00180C	BUTTON,POWER,CF-20F80 BLACK
	5020V00206A	BUTTON,POWER 14"
400	3809V00089B	BACK COVER ASSY,CF-21F80 A/V IN-OUT
	3809V00089K	BACK COVER ASSY(SCART),CF-21F80X
	3809V00073C	BACK COVER ASSY,CF-20F80 SCART
	3809V00073E	BACK COVER ASSY, PHONE JACK
	3809V00081B	BACK COVER ASSY, CF-14F80 PHONE
511	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE
520	6871VMM206A	PWB ASSY,MAIN(84A) [01,01] 21" CF-21F80 CIS
	6871VMM158W	PWB ASSY,MAIN(84A) [01,01] CF-20F80 CIS
	6871VMM205H	PWB ASSY,MAIN(84A) [09,01] 20" CF-20F80 SBITANY
	6871VMM206C	PWB ASSY,MAIN(84A) [01,01] 14" CIS
	6871VMM206F	PWB ASSY,MAIN(84A) [01,01] 21" CIS AUTO
	6871VMM209T	PWB ASSY,MAIN(84A) [01,05] 20" H.POINT
	6871VMM219G	PWB ASSY,MAIN(84A) [01,01] 20" CIS ORION CPT
	6871VMM229U	PWB ASSY,MAIN(84A) [01,01] CF-20F80X CIS
	6871VMM229T	PWB ASSY,MAIN(84A) [01,01] CF-21F80X CIS
	6871VMM236U	PWB ASSY,MAIN(84A) [09,01] 20" TELESTAR
	6871VMM278G	PWB ASSY,MAIN(84A) [09,01] 21" MA-PL
	6871VMM302V	PWB ASSY,MAIN(84A) [09,01] 20F80 ROMANEL
	6871VMM302W	PWB ASSY,MAIN(84A) [09,01] 20F80X ROMANEL
540	6871VSM201B	PWB ASSY,TXT
	6871VSM201E	PWB ASSY,TXT P/H(EAST EU)
	6871VSM251F	PWB ASSY,TXT MA-PL
912	1PWG0302816	SCREW,TRUSS HEAD D3 L12
913	332-057B	SCREW ASSY,HEXAGON HEAD
943	1PPF0403116	SCREW,PAN HEAD D4 L16
⚠ P801	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0

EXPLODED VIEW(CT/CF-14/20/21K50E/52E/X/54ET)



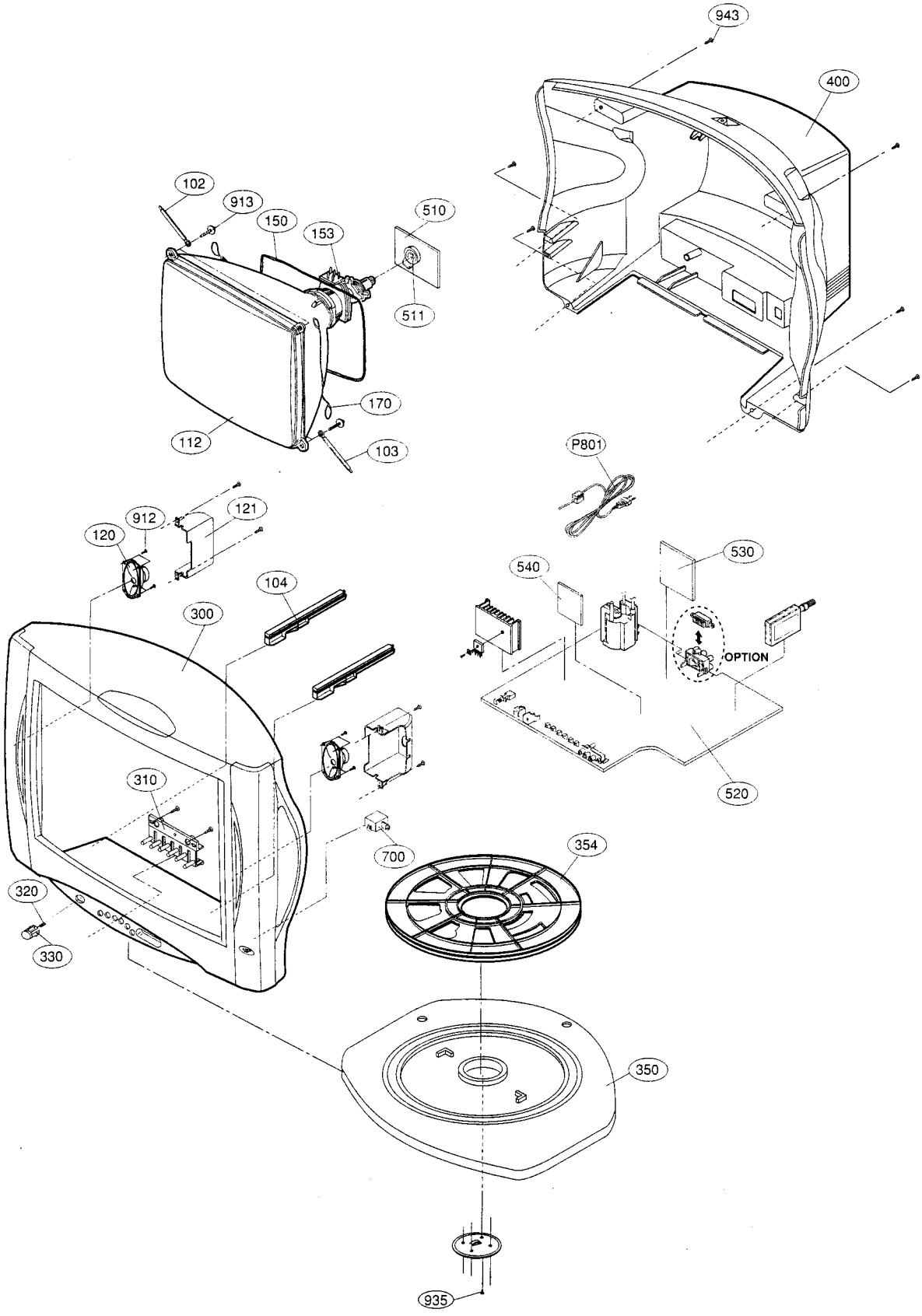
EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

NO	PART NO	DESCRIPTIONS
102	341-721E	HOLDER,D-COIL(FOR SAFA L=65)
103	341-721F	HOLDER,D-COIL(FOR SAFA,L=130)
104	343-B52A	SUPPORTER,PCB
⚠ 112	2055-V0672Q	CPT A51KPD12XX 14M7KR
	2055-V0672N	CPT A51KPD12XX 14Q7KR *H.POINT
	2055-V0672P	CPT A51KPD12XX 14K7KR(+0.2) *LGEGF 21"
	2055-V0674C	CPT A51KPD12XX 014L7KR *CIS
	2055-V1221A	CPT A48QAD220X 03L7ND(+0.5G)
	2055-V1221C	CPT A48QAD220X 03M7ND(+0.3G)
	2055-V1221D	CPT A48QAD220X 03K7ND(+0.2) *LGEGF 20"
	2055-01221H	CPT A48QAD220X 03R7ND *DRAGON
	2055-00742B	CPT A34KPU02XX 31T7ND
	2055-00744K	CPT A34KPU02XX 00L7ND *LGEAK 14"
	2055-V1221G	CPT A48QAD220X 03R7ND(-0.1G)KENYA
	6335V20002B	CPT ASSY A48JLL90X (ORION)*CIS
	6335V20001D	CPT ASSY A48JLL90X (ORION)*LGEGF-IR
	112-C21G(*)	CPTSET A51EER131X29(S/S GERMANY) LGEPL 21"
120	120-C77G	SPEAKER C122P02K14598OHM 10 21"
	6400VF5001B	SPEAKER 16OHM 5/7W 20"
	120-C93G	SPEAKER C091P06K1459 8OHM 14"
⚠ 150	150-D02T	COIL,DEGAUSSING,AL 21" 56T 12 OHM
	150-D02M	COIL,DEGAUSSING,CU 20" 60T 15 OHM
	150-D02B	COIL,DEGAUSSING,CU 14" 42T 5.7OHM
⚠ 153	153-110F	DYDCAN1*110F-21FSAA
	153-276A	DYDCAM1*20PLAA
	6150V-1002C	DYODY-M2007(ORION)
⚠ 170	170-851C	LEAD SET,CPT EARTH 20,21"(L=640)
	170-851A	LEAD SET,CPT EARTH 14"(L=460)
300	3106V00048C	CABINET UNIT,CF-21K50E MPGRT GS
	3106V00048G	CABINET UNIT,CF-21K52E MPGRT GS
	3106V00048H	CABINET UNIT,CF-21K50E LPLRR
	3106V00048M	CABINET UNIT,CF-21K50E MPLRB LG
	3106V00049C	CABINET UNIT,CF-20K52E MPGRT GS
	3106V00049D	CABINET UNIT,CF-20K50E LPLRR
	3106V00049J	CABINET UNIT,CF-20K52E MPLRD LG
	3106V00049K	CABINET UNIT,CF-20K50E MPGRT
	3106V00063D	CABINET UNIT,KCF14K50E FPLRD2
	3106V00049M	CABINET UNIT,CF-20K50E H.POINT
	3106V00076B	CABINET UNIT,KCF21K54ET LGEPL
310	5020V00158A	BUTTON,CONTROL 20,21"
	5020V00189B	BUTTON,CONTROL 14"
320	320-062H	SPRING,COIL
330	5020V00157C	BUTTON,POWER 20,21"
	5020V00188B	BUTTON,POWER 14"
400	3809V00069C	BACK COVER ASSY,SCART
	3809V00069A	BACK COVER ASSY,A/V IN/OUT JACK
	3809V00091C	BACK COVER ASSY,14" A/V IN/OUT JACK
	3809V00069J	BACK COVER ASSY LGEPL
⚠ 511	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE

NO	PART NO	DESCRIPTIONS
520	6871VMM158L	PWB ASSY,MAIN(84A)[15,01] CF-21K50E SBITANY
	6871VMM158R	PWB ASSY,MAIN(84A)[13,01] CF-21K52E SBITANY
	6871VMM158Y	PWB ASSY,MAIN(84A)[07,01] CF-21K50E CIS
	6871VMM199A	PWB ASSY,MAIN(84A)[05,01] CF-21K52E R. SHAHAB
	6871VMM199B	PWB ASSY,MAIN(84A)[05,01] CF-21K52EX R. SHAHAB
	6871VMM209D	PWB ASSY,MAIN(84A)[07,01] CF-21K50E PHONO BROTHERS
	6871VMM158U	PWB ASSY,MAIN(84A)[13,01] CF-20K52E SCART SBITANY
	6871VMM209H	PWB ASSY,MAIN(84A)[05,01] CF-20K52E PHONO SBITANY
	6871VMM205K	PWB ASSY,MAIN(84A)[15,01] CF-20K50E SCART SBITANY
	6871VMM158Z	PWB ASSY,MAIN(84A)[07,01] CF-20K50E CIS
	6871VMM205M	PWB ASSY,MAIN(84A)[05,01] KCF14K50E DRAGON
	6871VMM205P	PWB ASSY,MAIN(84A)[07,01] KCF20K50E DRAGON
	6871VMM205T	PWB ASSY,MAIN(84A)[07,05] CF-21K50E E.B.G
	6871VMM206T	PWB ASSY,MAIN(84A)[05,01] KCF14K50E LGEAK
	6871VMM209C	PWB ASSY,MAIN(84A)[07,01] CF-20K50E BROTHERS
	6871VMM209M	PWB ASSY,MAIN(84A)[07,05] CF-20K50E H.POINT
	6871VMM219B	PWB ASSY,MAIN(84A)[05,01] CF-21K52EX LGEGF-IR
	6871VMM219E	PWB ASSY,MAIN(84A)[05,01] CF-20K52EX LGEGF-IR
	6871VMM219F	PWB ASSY,MAIN(84A)[07,01] 20" CIS ORION CPT
	6871VMM219L	PWB ASSY,MAIN(84A)[05,01] CF-20K52EX LGEGF-IR (ORION CPT)
	6871VMM236G	PWB ASSY,MAIN(84A)[05,01] CF-20K52ECIS
	6871VMM268A	PWB ASSY,MAIN(84A)[23,01] CT-20K50E LGEGF 20"
	6871VMM271A	PWB ASSY,MAIN(84A)[23,01] CT-21K50E LGEGF 21"
	6871VMM278R	PWB ASSY,MAIN(84A)[13,01] LGEPL 21"
530	6871VSM202A	PWB ASSY,SUB AV/ST(MC84A)
	6871VSM286E	PWB ASSY,SUB RF/ST(MC84A)
540	6871VSM201A	PWB ASSY, TXT
	6871VSM251F	PWB ASSY, TXT P/H
700	0IGL120104A	CDS SENSOR MODULE(P1201-04)
912	1PTF0402816	SCREW,TRUDD HEAD D4 L12
913	332-057B	SCREW ASSY,HEXAGON HEAD 20,21"
	332-057A	SCREW ASSY,HEXAGON HEAD 14"
931	1PWG0302816	SCREW,TRUSS HEAD D3 L12
943	1PPF0403116	SCREW,PAN HEAD D4 L16
⚠ P801	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0

EXPLODED VIEW(CT/CF-14/16/20/21S10E/X/12E)



EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

NO	PART NO	DESCRIPTIONS
102	341-721E	HOLDER,D-COIL(FOR SAFA,L=65)
103	341-721F	HOLDER,D-COIL(FOR SAFA,L=130)
104	343-B52A	SUPPORTER,PCB
⚠ 112	2055-V0674C	CPT A51KPD12XX 14L7KR *CIS 21"
	2055-V0672M	CPT A51KPD12XX 14T7KR (-0.2G)*ROCHA-M 21"
	2055-V0672N	CPT A51KPD12XX 14Q7KR *E.B.G
	2055-V0672Q	CPT A51KPD12XX 14M7KR *RADELEC,BROTHERS 21", LGEGF-IR
	2055-V1221A	CPT A48QAD220X 03L7ND *CIS 20"
	2055-V1221B	CPT A48QAD220X 03N7ND *DG-CZC 20"
	6341V21002B	BARE CPT ASSY A51QAE320X 14N7KR *DG-CZC 21"
	2055-V1221C	CPT A48QAD220X 03M7ND *LGEGF-IR,BROTHERS 20"
	2055-V1221D	CPT A48QAD220X 03K7ND (+0.2)*LGEGF 20"
	2055-V1221G	CPT A48QAD220X 03R7ND(-0.1G) *LGEAL
	2055-00742A	CPT A34KPU02XX 31R7ND 14"
	2055-00672M	CPT A51KPD12XX 14T7KR21"W.R.S
	2055-V0672P	CPT A51KPD12XX 14K7KR (+0.2)*LGEGF 21"
	2055-V0672V	CPT A51KPD12XX 14R7KR 21"H.POINT
	2055-V0744L	CPT A34KPU02XX 31T7ND (-0.2G)*ROCHA-M 14"
	6335V21001A	CPTASSY A51JSW91X LGESV
	6335V14005A	CPTASSY 37SX110Y22(EDI 14") *SBITANY
	6335V20002B	CPTASSY A48JLLX (ORION)
	112-C21G(*)	CPT SET A51EER131X29 LGEPL 21"
120	120-D38F	SPEAKER,MID-RANGE C131P01-044K14 8 OHM
	6400VA0001A	SPEAKER,8 OHM 5/12W 14"
121	4810V00071A	BRACKET,COVER(SPK)
⚠ 150	150-D02T	COIL,DEGAUSSING,AL 21" 56T 12 OHM
	150-D02Y	COIL,DEGAUSSING,CU 20" 60T 15 OHM
	150-D02A	COIL,DEGAUSSING,CU 14" 42T 5.7OHM
⚠ 153	153-110F	DY DCAN1*110F-21FSAA
	153-113V	DY DCAD2-14SNAB14"
	153-276A	DY DCAM1-20PLAA
⚠ 170	170-851C	LEAD SET ASSY,CPT EARTH(L=640) 20,21"
	170-851A	LEAD SET ASSY,CPT EARTH(L=460) 14"
300	3106V00057D	CABINET UNIT CF-21S10E, LG GOLDEN EYE
	3106V00057B	CABINET UNIT CF-21S12E,BK, GOLDEN EYE
	3106V00058F	CABINET UNIT CF-20S12E STEREO M/ST
	3106V00058C	CABINET UNIT CF-20S10E,BK,GOLDEN
	3106V00070B	CABINET UNIT 14S10E,LG,GOLDEN
	3106V00057C	CABINET UNIT 21"W.R.S
	3106V00057E	CABINET UNIT 21"H.POINT
	3106V00058E	CABINET UNIT, CF-20S10EX LGEAL
310	5020V00166A	BUTTON,CONTROL 21"
	5020V00187A	BUTTON,CONTROL 20"
	5020V00183A	BUTTON,CONTROL 14"
320	320-070G	SPRING,COIL
	320-062H	SPRING,COIL 20"
330	5020V00165A	BUTTON,POWER 21"
	5020V00186A	BUTTON,POWER 20"
	5020V00184A	BUTTON,POWER 14"
350	3750V00009C	RACK,BASE ASSY 20"/21" BK COLOR
	3750V00009A	RACK,BASE ASSY
354	4980V00035A	SUPPORTER,BASE(SWIVEL+C/A)

NO	PART NO	DESCRIPTIONS
400	3809V00082D	BACK COVER ASSY A/V JACK
	3809V00082A	BACK COVER ASSY SCART
	3809V00097B	BACK COVER ASSY 14" A/V JACK
	3809V00097E	BACK COVER ASSY 14" SCART
	3809V00082B	BACK COVER ASSY 21" PHONO
	3809V00082C	BACK COVER ASSY 21" PHONO
⚠ 511	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE
520	6871VMM158X	PWB ASSY,MAIN(84A)[07,01] 21" CIS CF-21S10EX
	6871VMM158Y	PWB ASSY,MAIN(84A)[07,01] 21" CIS CF-21S10E
	6871VMM205D	PWB ASSY,MAIN(84A)[13,01] 21" RADELEC
	6871VMM206G	PWB ASSY,MAIN(84A)[07,01] 20" LGEAL
	6871VMM209D	PWB ASSY,MAIN(84A)[07,01] 21" BROTHERS CF-21S10E
	6871VMM254G	PWB ASSY,MAIN(84A)[01,01] 14" SBITANY
	6871VMM254T	PWB ASSY,MAIN(84A)[01,01] 14" LGEGF-IR CF-14S10
	6871VMM339D	PWB ASSY,MAIN(84A)[01,01] 14" LGEGF-IR CF-14S10X
	6871VMM209H	PWB ASSY,MAIN(84A)[05,01] 20" LGEGF-IRCF-20S12E
	6871VMM209R	PWB ASSY,MAIN(84A)[05,01] CF-21S12E LGEGF-IR
	6871VMM158U	PWB ASSY,MAIN(84A)[13,01] 20" SBITANY
	6871VMM158Z	PWB ASSY,MAIN(84A)[07,01] 20" CISCF-20S10E
	6871VMM209C	PWB ASSY,MAIN(84A)[07,01] 20" BROTHERS CF-20S10E
	6871VMM158T	PWB ASSY,MAIN(84A)[05,05] 14"MCR
	6871VMM158V	PWB ASSY,MAIN(84A)[07,05] 21"W.R.S
	6871VMM158N	PWB ASSY,MAIN(84A)[07,05] 21"H.POINT
	6871VMM219B	PWB ASSY,MAIN(84A)[05,01] CF-21S12EXLGEGF-IR
	6871VMM219E	PWB ASSY,MAIN(84A)[05,01] CF-20S12EXLGEGF-IR
	6871VMM219F	PWB ASSY,MAIN(84A)[07,01] CF-20S10EORION CPT
	6871VMM229X	PWB ASSY,MAIN(84A)[13,01] 14" ROCHA-M
	6871VMM272A	PWB ASSY,MAIN(84A)[13,01] 21" ROCHA-M
	6871VMM199D	PWB ASSY,MAIN 1 [21,00] KCD 21S122
	6871VMM236G	PWB ASSY,MAIN(84A)[05,01] 20" CIS CF-20S12E
	6871VMM236H	PWB ASSY,MAIN(84A)[05,01] 21" CIS CF-21S12E
	6871VMM269A	PWB ASSY,MAIN(84A)[23,01] 20" LGEGF CT-20S10E
	6871VMM270A	PWB ASSY,MAIN(84A)[23,01] 21" LGEGF CT-21S10E
	6871VMM278K	PWB ASSY,MAIN(84A)[15,01] 21" LGEPL
540	6871VSM201A	PWB ASSY,SUB(84A)TXT P/R ETC
	6871VSM251A	PWB ASSY,SUB(84A)TXT P/H
	6871VSM251P	PWB ASSY,SUB(84A)TXT PARSI
700	0IGL120104A	CDS SENSOR
912	1PTF0402816	SCREW,TRUSS HEAD D4 L12
913	332-057B	SCREW ASSY,HEXAGON HEAD 20,21"
	332-057A	SCREW ASSY,HEXAGON HEAD 14"
943	1PPF0403116	SCREW,PAN HEAD D4 L16
935	1PTF0402816	SCREW,TRUSS HEAD D4 L12
⚠ P801	174-009E	CORD,POWER(W/HOLD,HOUSING,L=200,4.0
	174-224A	CORD,POWER

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REPLACEMENT PARTS LIST

LOCA. NO	PART NO	DESCRIPTION
		IC
IC01	0ISO883806F	IC,LG8838-06F *LANG.ASIA 8
"	0ISO883807D	IC,LG8838-07D *LANG.RUSSIA
IC02	0IAL240410A	IC,AT24C04-10PC 8D EEPROM(4K)
"	0IAL241600B	IC,AT24C16-10PC 8D EEPROM(16K)
IC03	0ISS754200A	IC,KA7542Z RESET TO92 TP 4.2V
IC201	0IHA405200A	IC,CD4052B 16P DIP DIFF-4-CH MUX
IC202	0IHA405200A	IC,CD4052B 16P DIP DIFF-4-CH MUX
IC301	0IPH835150A	IC,TDA8351/N5 9P,SIP BK V/OUT(W/O
IC501	0IPH884212A	IC,TDA8842 (S1)/N2 56SDIP BK
IC601	0ISA428200A	IC,LA4282 12S 2CHX10W AUDIO AMP
IC602	0ISG200600A	IC,TDA2006 5Z 1CHX10W AUDIO AMP
IC603	0IKE455800E	IC,KIA4558 DUAL OP AMP
IC801	0ISH123200B	IC,PC123 FY2PHOTO COUPLER
⚠ IC802	0ITF435000A	IC,4N35(G)V 6D PHOTO COUPLER
IC803	0ISK665413A	IC,STR-F6654(LF1352) 5P,SIP BK ST
IC804	0ISK115000A	IC,SE115N(LF12) 3P 115V ERROR AMP
"(14")	0ISK110000A	IC,SE110N(LF12) 3P 110V ERROR AMP
IC840	0ISS780500J	IC,KA78L05AZ TO-92 TP 5V REGULATO
IC841	0ISS780800H	IC,KA78R08 4P,TO-220F BK LOW DROP
IC901	0IPH610700A	IC,TDA6107Q SIP9 BK VIDEO OUT AMP
		DIODE
DB801	0DD260000BB	DIODE,BRIDGE D2SBA60(STK)
D01	0DD414809ED	DIODE,DS4148
D02	0DD414809ED	DIODE,DS4148
D101	0DD414809ED	DIODE,DS4148
D102	0DD859009AA	DIODE,MA859
D302	0DD414809ED	DIODE,DS4148
D401	0DD150009CA	DIODE,RGP15J
D501	0DD414809ED	DIODE,DS4148
D502	0DD414809ED	DIODE,DS4148
D503	0DD414809ED	DIODE,DS4148
D504	0DD414809ED	DIODE,DS4148
D505	0DD414809ED	DIODE,DS4148
D506	0DD414809ED	DIODE,DS4148
D507	0DD414809ED	DIODE,DS4148
D508	0DD414809ED	DIODE,DS4148
D509	0DD414809ED	DIODE,DS4148
D601	0DD414809ED	DIODE,DS4148
D602	0DD414809ED	DIODE,DS4148
D631	0DD414809ED	DIODE,DS4148
D741	0DR149379AA	DIODE,1N4937G
D742	0DD150009CA	DIODE,RGP15J
D743	0DR149379AA	DIODE,1N4937G
D802	0DD100009AM	DIODE,EU1ZV
D803	0DD414809ED	DIODE,DS4148
D804	0DD120000BB	DIODE,FML-G12S *AV STEREO
"	0DD360009AA	DIODE,BYW36(2A/600V) *MONO
D805	0DD200009AC	DIODE,RG-2 V
D806	0DD100009AM	DIODE,EU1ZV
D807	0DD300009AC	DIODE,RU3AMV
D808	0DD200009AF	DIODE,RU-2MV
D901	0DD400309AD	DIODE,IN4003A RECT
LD01	0DD000000BA	DIODE,LAMP(DIFFUSION TYPE)
ZD101	0DZ510009AB	DIODE,ZENER MTZ5.1B
ZD102	0DZ330009BA	DIODE,ZENER HZT33
ZD201	0DZ510009AB	DIODE,ZENER MTZ5.1B

LOCA. NO	PART NO	DESCRIPTION
ZD501	0DZ180009AA	DIODE,ZENER MTZ18B
ZD651	0DZ120009AA	DIODE,ZENER Z12BM TA
ZD681	0DZ120009AA	DIODE,ZENER Z12BM TA
ZD741	0DZ820009AA	DIODE,ZENER MTZ8.2B
ZD742	0DZ820009AA	DIODE,ZENER MTZ8.2B
ZD90	0DZ910009BA	DIODE,ZENER MTZ9.1B
ZD901	0DZ750009AA	DIODE,ZENER MTZ7.5B
ZD902	0DZ750009AA	DIODE,ZENER MTZ7.5B
ZD903	0DZ750009AA	DIODE,ZENER MTZ7.5B
ZD904	0DZ750009AA	DIODE,ZENER MTZ7.5B
		TRANSISTOR
Q01	0TR945009AA	TR,KSC945C-Y
Q02	0TR120209AD	TR,KSR1202
Q102	0TR319709AB	TR,KTC3197,TP(KTC388A),KEC
Q103	0TR945009AA	TR,KSC945C-Y
Q201	0TR945009AA	TR,KSC945C-Y
Q501	0TR733009AA	TR,KSA733C-Y
Q502	0TR945009AA	TR,KSC945C-Y
Q503	0TR733009AA	TR,KSA733C-Y
Q504	0TR945009AA	TR,KSC945C-Y
Q505	0TR733009AA	TR,KSA733C-Y
Q506	0TR733009AA	TR,KSA733C-Y
Q510	0TR733009AA	TR,KSA733C-Y
Q511	0TR733009AA	TR,KSA733C-Y
Q512	0TR945009AA	TR,KSC945C-Y
Q514	0TR120209AD	TR,KSR1202
Q516	0TR945009AA	TR,KSC945C-Y
Q601	0TR733009AA	TR,KSA733C-Y
Q602	0TR319809AA	TR,KTC3198-TP-Y (KTC1815)KEC
Q651	0TR945009AA	TR,KSC945C-Y
Q652	0TR945009AA	TR,KSC945C-Y
Q653	0TR945009AA	TR,KSC945C-Y
Q654	0TR945009AA	TR,KSC945C-Y
Q680	0TR120209AD	TR,KSR1202
Q741	0TR525000AA	TR,2SC5250 TO-3PFM HITACHI
Q742	0TR233109AA	TR,KSC2331-Y TP SAMSUNG TO-92L
Q801	0TR120209AD	TR,KSR1202
Q802	0TR120209AD	TR,KSR1202
		CAPACITOR
C02	0CE475DK618	C,ELECTROLYTIC 4.7UF STD 50V M
C03	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C06	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C07	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C08	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C09	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C10	181-007E	CAPACITOR MPE 50V 0.18UF J(TR)
C102	0CE335DK618	C,ELECTROLYTIC 3.3UF STD 50V M
C103	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C104	0CE226DH618	C,ELECTROLYTIC 22UF STD 25V M
C105	0CE475DK618	C,ELECTROLYTIC 4.7UF STD 50V M
C106	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C107	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C108	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C109	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C11	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
C110	0CE226DH618	C,ELECTROLYTIC 22UF STD 25V M
C111	0CN1020K519	C,TUBULA(HIGH DIELE) 1000P 50V K

LOCA. NO	PART NO	DESCRIPTION
C112	0CN1030F679	C,TUBULA(HIGH DIELE) 10000P 16V M
C113	0CX3300K409	C,TUBULA(T.C) 33PF 50V J
C114	0CX3300K409	C,TUBULA(T.C) 33PF 50V J
C12	0CE335DK618	C,ELECTROLYTIC 3.3UF STD 50V M
C13	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C18	0CX1000K409	C,TUBULA(T.C) 10P 50V J
C19	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C20	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
C21	0CX1000K409	C,TUBULA(T.C) 10P 50V J
C201	0CE106DK618	C,ELECTROLYTIC 10UF STD 50V M
C202	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C203	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C205	0CE476DF618	C,ELECTROLYTIC 47UF STD 16V M
C206	181-064P	CAPACITOR CE BP 16V 10
C231	0CE226DH618	C,ELECTROLYTIC 22UF STD 25V M
C232	0CE226DH618	C,ELECTROLYTIC 22UF STD 25V M
C233	0CE227DF618	C,ELECTROLYTIC 220UF STD 16V M
C301	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C302	0CN1020K519	C,TUBULA(HIGH DIELE) 1000P 50V K
C303	0CE226DK618	C,ELECTROLYTIC 22UF STD 50V M
C304	0CE227DH618	C,ELECTROLYTIC 220UF STD 25V M
C305	0CK3320W515	C,CERAMIC(HIGH DIELE) 3300P 500V K
C306	0CK4710W515	C,CERAMIC(HIGH DIELE) 470PF 500V K
C307	0CQ1531N509	C,POLYESTER(MYLAR) 0.015MF 100V K
C308	0CE225DK618	C,ELECTROLYTIC 2.2UF STD 50V M
C309	0CQ1031N509	C,POLYESTER(MYLAR) 0.01U 100V K
C310	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C311	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C401	181-013B	CAPACITOR MPP 200V 0.36uF J
"	181-013G	CAPACITOR MPP 200V 0.5uF J*ORION CPT
"(20")	181-013C	CAPACITOR MPP 200V 0.39uF J
"(14")	181-013C	CAPACITOR MPP 200V 0.39uF J
C402	0CE475DP618	C,ELECTROLYTIC 4.7UF STD 160V M
C403	181-015F	C,MPP 1600V 0.0073UF H
"(20")	181-015P	C,MPP 1600V 0.0075UF H
"(14")	181-015E	C,MPP 1600V 0.0068UF H
C404	0CK8210K515	C,CERAMIC(HIGH DIELE) 820P 50V K
C502	0CE225DK618	C,ELECTROLYTIC 2.2UF STD 50V M
C504	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C506	181-007C	C,MPE 50V 0.1UF J
C507	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C508	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C509	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
C510	0CE107DF618	C,ELECTROLYTIC 100UF STD 16V M
C511	181-007H	CAPACITOR MPE 50V 0.47UF J
C512	0CE2251K636	C,ELECTROLYTIC 2.2UF SM 50V M
C513	181-007F	C,MPE 50V 0.22UF J
C514	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C515	0CQ1831N509	C,POLYESTER(MYLAR) 0.018U 100V K
C516	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
C517	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
C518	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
C521	0CC2210K415	C,CERAMIC(TEMP COMP) 220P 50V J NPO TP
C522	0CC2710K415	C,CERAMIC(TEMP COMP) 270P 50V J
"	0CC1800K415	C,CERAMIC(TEMP COMP) 18P 50V J *CT-PAL
C523	0CC6200K415	C,CERAMIC 62PF 50V J
"	0CQ1021N509	C,POLYESTER 0.001U 100V K*CT-PAL
C524	0CQ4731N509	C,POLYESTER(MYLAR) 0.047U 100V K

LOCA. NO	PART NO	DESCRIPTION
"	181-442Z	C,POLYESTER(MYLAR) 0.1U 50V K*CT-PAL
C525	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
C526	0CE107DF618	C,ELECTROLYTIC 100UF STD 16V M
C527	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
C528	0CN1010K519	C,TUBULA(HIGH DIELE) 100PF 50V K
C531	0CE104DK618	C,ELECTROLYTIC 0.1UF STD 50V M
C532	0CQ2721N409	C,POLYESTER(MYLAR) 2700PF 100V J
C533	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C534	0CQ4721N509	C,POLYESTER(MYLAR) 0.0047U 100V K
C535	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C536	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C537	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
C538	0CQ1041N455	C,POLYESTER(MYLAR) 0.1000UF 100V J
C539	181-007F	C,MPE 50V 0.22UF J
C540	0CSZVTA001C	C,TANTALUM
C541	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
C542	0CQ3321N509	C,POLYESTER(MYLAR) 0.0033U 100V K *AV STEREO
"	0CQ3921N409	C,POLYESTER(MYLAR) 0.0039U 100V J *MONO
C543	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
C544	181-007H	CAPACITOR MPE 50V 0.47UF J(TR)
C545	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C548	0CE105DK618	C,ELECTROLYTIC 1UF STD 50V M
C550	0CN8200K519	C,TUBULA(HIGH DIELE) 82P 50V K B
C551	0CN8200K519	C,TUBULA(HIGH DIELE) 82P 50V K B
C552	0CN8200K519	C,TUBULA(HIGH DIELE) 82P 50V K B
C553	0CE335DK618	C,ELECTROLYTIC 3.3UF STD 50V M
C601	0CQ1031N509	C,POLYESTER(MYLAR) 0.01U 100V K
"	0CQ6821N509	C,POLYESTER(MYLAR) 0.0068U 100V K *RF.ST
C602	0CE684DK618	C,ELECTROLYTIC 0.68UF STD 50V M
C603	0CE107DH618	C,ELECTROLYTIC 100UF STD 25V M
C604	0CQ1031N509	C,POLYESTER(MYLAR) 0.01U 100V K
"	0CQ6821N509	C,POLYESTER(MYLAR) 0.0068U 100V K *RF.ST
C605	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C606	0CE107DH618	C,ELECTROLYTIC 100UF STD 25V M
C607	0CE106DH618	C,ELECTROLYTIC 10UF STD 25V M
C608	0CQ1041N509	C,POLYESTER(MYLAR) 0.1MF 100V L
C609	0CE477DK618	C,ELECTROLYTIC 470UF STD 50V M *AV STEREO
"	0CE227DJ618	C,ELECTROLYTIC 220UF STD 35V M *MONO
C610	0CE107DH618	C,ELECTROLYTIC 100UF STD 25V M
C611	0CE684DK618	C,ELECTROLYTIC 0.68UF STD 50V M
C612	0CE477DJ618	C,ELECTROLYTIC 470UF STD 35V M
C613	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C614	0CE477DJ618	C,ELECTROLYTIC 470UF STD 35V M
C615	0CE477DH618	C,ELECTROLYTIC 470UF STD 25V M
C630	0CQ1031N509	C,POLYESTER(MYLAR) 0.01U 100V K
C631	0CE225DK618	C,ELECTROLYTIC 2.2UF STD 50V M
C632	0CE336DK618	C,ELECTROLYTIC 33UF STD 50V M
C633	0CE225DK618	C,ELECTROLYTIC 2.2UF STD 50V M
C634	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
C651	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
C652	0CX4700K409	C,TUBULA(T.C) 47PF 50V J
C653	0CX4700K409	C,TUBULA(T.C) 47PF 50V J
C657	0CX4700K409	C,TUBULA(T.C) 47PF 50V J
C658	0CN1510K519	C,TUBULA 150P 50V K
C659	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
C661	0CE476DF618	C,ELECTROLYTIC 47UF STD 16V M
C662	0CN1010K519	C,TUBULA 100P 50V K
C680	0CQ6831N509	C,POLYESTER(MYLAR) 0.068MF 100V K

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
C681	0CE334DK618	C,ELECTROLYTIC 0.33UF STD 50V M
C682	0CE476DD618	C,ELECTROLYTIC 47UF STD 10V M
C683	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
C685	0CE107DF618	C,ELECTROLYTIC 100UF STD 16V M
C686	0CN1040K949	C,TUBULA 0.1UF 50V Z
C688	0CE476DF618	C,AL.ELECTROLYTIC 47UF STD 16V M
C741	0CQ1531N509	C,POLYESTER(MYLAR) 0.015MF 100V K
C743	0CK4710W515	C,CERAMIC(HIGH DIELE) 470PF 500V K
C744	0CE475DR618	C,ELECTROLYTIC 4.7UF STD 250V M
C745	0CK4710W515	C,CERAMIC(HIGH DIELE) 470PF 500V K
C746	0CE337DH618	C,ELECTROLYTIC 330UF STD 25V M
C747	0CK4710W515	C,CERAMIC(HIGH DIELE) 470PF 500V K
C748	0CE107DN618	C,ELECTROLYTIC 100UF STD 100V M
C749	181-009V	C,PP 200V 0.047UF K
C751	0CQ1031N509	C,POLYESTER(MYLAR) 0.01U 100V K
C752	0CE107DH618	C,ELECTROLYTIC 100UF STD 25V M
C753	0CE474DK618	C,ELECTROLYTIC 0.47UF STD 50V M
C80	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C801	0CE107BJ618	C,ELECTROLYTIC 100UF KME 35V M
C802	181-091U	CAPACITOR 2KV R 221K
C803	181-091Q	CAPACITOR 1KV R 471K TP5
C804	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C805	0CE227DF618	C,ELECTROLYTIC 220UF STD 16V M
⚠ C806	181-001V	C,AL.ELECTROLYTIC CE 450V 220UF M *AV STEREO
"	0CEZVBK002A	C,AL.ELECTROLYTIC 150UF 450V M *MONO
C807	0CK10201515	C,CERAMIC(HIGH DIELE) 1000P 1KV K
C808	181-091R	CAPACITOR 1KV R 102K TP5
⚠ C809	0CQZVBK002C	C,POLYESTER A.C 275V 0.22UF K
C81	0CE476DF618	C,ELECTROLYTIC 47UF STD 16V M
⚠ C810	0CQZVBK002D	C,POLYESTER AC275V 0.47UF K *X-RAY
"	0CQZVBK002C	C,POLYESTER AC275V 0.22UF K *NORMAL
⚠ C811	181-120N	CAPACITOR ACT 4KV E 102M *AV STEREO
"	181-120K	CAPACITOR ACT 4KV E 222M *MONO
⚠ C812	181-120N	CAPACITOR ACT 4KV E 102M
C813	0CK4710W515	C,CERAMIC(HIGH DIELE) 470PF 500V K
C814	0CE108DK61A	C,ELECTROLYTIC 1000UF STD 50V M
C815	181-091Q	CAPACITOR 1KV R 471K TP5
C816	0CE228BF618	C,ELECTROLYTIC 2200UF KME 16V M
C817	181-091Q	CAPACITOR 1KV R 471K TP5
C818	0CE107DH618	C,ELECTROLYTIC 100UF STD 25V M
C819	181-091R	CAPACITOR 1KV R 102K TP5
C820	0CE227DP650	C,ELECTROLYTIC 220UF STD 160V M
C821	0CE1071P650	C,ELECTROLYTIC 100UF SM 160V M
C822	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
C823	0CK4710K515	C,CERAMIC(HIGH DIELE) 470P 50V K
C824	0CE477DJ618	C,ELECTROLYTIC 470UF STD 35V M
C825	181-091P	CAPACITOR 1KV SL 271J
C826	181-091N	CAPACITOR 1KV SL 101J
C829	181-011B	CAPACITOR PP 1600V 0.001UF J
C830	0CE475DK618	C,ELECTROLYTIC 4.7UF STD 50V M
C90	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
C904	0CQZVBK002A	C,POLYESTER A.C 275V 0.1UF M
C905	0CE106DR618	C,ELECTROLYTIC 10UF STD 250V M
C906	0CE475DR618	C,ELECTROLYTIC 4.7UF STD 250V M
C907	181-033S	CAPACITOR 2KV B 122K TP7.5
J123	0CN1510K519	C,TUBULA 150P 50V K

FERRITE CORE

LOCA. NO	PART NO	DESCRIPTION
FB741	125-022K	CORE,FERRITE 1UH
FB801	125-022K	CORE,FERRITE 1UH
FB802	125-022K	CORE,FERRITE 1UH
FB803	125-123A	CORE,FERRITE BFD3565R2F
FB804	125-022K	CORE,FERRITE 1UH

COIL & TRANSFORMER

J72	0LA0102K119	INDUCTOR,10UH K
L02	0LA0102K119	INDUCTOR,10UH K
L03	0LA0102K119	INDUCTOR,10UH K
L101	0LA0101K119	INDUCTOR,1.0UH K
L231	0LA0101K119	INDUCTOR,1UH K
L301	0LA0102K139	INDUCTOR,10UH K
L302	0LA0102K139	INDUCTOR,10UH K
L401	150-L02C	COIL,H-LINEARITY 170UH
"	150-L02Y	COIL,H-LINEARITY 70UH*ORION CPT
"(14")	150-L01W	COIL,H-LINEARITY 57UH
L503	0LA0681K119	INDUCTOR,6.8UH K
L504	0LA0561K119	INDUCTOR,5.6UH K
L507	0LA1000K119	INDUCTOR,100UH K
L508	0LA1000K119	INDUCTOR,100UH K
L510	0LA0102K119	INDUCTOR,10UH K
L521	0LA0561K119	INDUCTOR,5.6UH K
L522	0LA0561K119	INDUCTOR,5.6UH K
L523	0LA0561K119	INDUCTOR,5.6UH K
L651	0LA0272K119	INDUCTOR,27UH K
L652	0LA0122K119	INDUCTOR,12UH K
L802	150-C02F	COIL,CHOKE 82UH R1217
L901	150-C02A	COIL,CHOKE 10UH R0814
R45	0LA0102K119	INDUCTOR,10UH K
R47	0LA0102K119	INDUCTOR,10UH K
R49	0LA0102K119	INDUCTOR,10UH K
⚠ T401	6170VC0003A	TRANSFORMER,HORIZONTAL
T801	150-F06H	COIL, LINE FILTER SQE2930
T802	151-A13G	TRANSFORMER,SMPS EER-4215.
"(14")	151-B06V	TRANSFORMER,SMPS EER-4215.

RESISTOR

AR01	180-E01K	R,ARRAY 4700 OHM 5% 1.778P 4.7K*8 1/8W
AR02	180-E01K	R,ARRAY 4700 OHM 5% 1.778P 4.7K*8 1/8W
D02	0RD1002F609	R,CARBON FILM 10K 1/6W 5 *MONO
FR601	0RF0470H609	R,FUSIBLE 0.47 1/2W 5%
FR602	0RF0470J607	R,FUSIBLE 0.47 1W 5%
FR704	0RF0470H609	R,FUSIBLE 0.47 1/2W 5
⚠ FR742	0RF0470J607	R,FUSIBLE 0.47 1W 5%
FR743	0RF0470J607	R,FUSIBLE 0.47 1W 5%
FR802	0RF0470H609	R,FUSIBLE 0.47 1/2W 5
FR901	0RF0201K607	R,FUSIBLE 2 2W 5%
"	0RF0331K607	R,FUSIBLE 3.30 2W 5% *ORION CPT
"(14")	0RF0221K607	R,FUSIBLE 2.2 2W 5%
J68	0RD0222F609	R,CARBON FILM 22 1/6W 5%
L680	0RD3600F609	R,CARBON FILM 360 1/6W 5
R01	0RD2200F609	R,CARBON FILM 220 1/6W 5
R02	0RD6200F609	R,CARBON FILM 620 1/6W 5
R04	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R08	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R101	0RD1202F609	R,CARBON FILM 12K 1/6W 5
R102	0RD1002F609	R,CARBON FILM 10K 1/6W 5

LOCA. NO	PART NO	DESCRIPTION
R103	0RD1802F609	R,CARBON FILM 18K 1/6W 5
R106	0RD0562H609	R,CARBON FILM 56 1/2W 5
R107	0RD0562H609	R,CARBON FILM 56 1/2W 5
R108	0RD0682F609	R,CARBON FILM 68 1/6W 5
R110	0RD5101F609	R,CARBON FILM 5.1K 1/6W 5
R111	0RD2200F609	R,CARBON FILM 220 1/6W 5
R112	0RD1000F609	R,CARBON FILM 100 1/6W 5
R113	0RD2201F609	R,CARBON FILM 2.2K 1/6W 5
R115	0RD0562F609	R,CARBON FILM 56 1/6W 5
R116	0RD6801F609	R,CARBON FILM 6.8K 1/6W 5
R117	0RD2201F609	R,CARBON FILM 2.2K 1/6W 5
R118	0RD6800F609	R,CARBON FILM 680 1/6W 5
R119	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R120	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R17	0RD4702F609	R,CARBON FILM 47K 1/6W 5
R18	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R20	0RD0102F609	R,CARBON FILM 10 1/6W 5
R201	0RD3302F609	R,CARBON FILM 33K 1/6W 5
R202	0RD2200F609	R,CARBON FILM 220 1/6W 5
R203	0RD3302F609	R,CARBON FILM 33K 1/6W 5
R204	0RD1001F609	R,CARBON FILM 1K 1/6W 5
R205	0RD1000F609	R,CARBON FILM 100 1/6W 5
R206	0RD1000F609	R,CARBON FILM 100 1/6W 5
R207	0RD0472H609	R,CARBON FILM 47 1/2W 5
R22	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R23	0RD1200F609	R,CARBON FILM 120 1/6W 5
R231	0RD0752F609	R,CARBON FILM 75 1/6W 5
R232	0RD0752F609	R,CARBON FILM 75 1/6W 5
R233	0RD0752F609	R,CARBON FILM 75 1/6W 5
R234	0RD0752F609	R,CARBON FILM 75 1/6W 5
R235	0RD0562F609	R,CARBON FILM 56 1/6W 5
R236	0RD0752F609	R,CARBON FILM 75 1/6W 5
R237	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R238	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R240	0RD0752F609	R,CARBON FILM 75 1/6W 5
R241	0RD2203F609	R,CARBON FILM 220K 1/6W 5
R242	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R243	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R244	0RD2203F609	R,CARBON FILM 220K 1/6W 5
R25	0RD1000F609	R,CARBON FILM 100 1/6W 5
R290	0RD3300H609	R,CARBON FILM 330 1/2W 5
R291	0RD5100H609	R,CARBON FILM 510 1/2W 5
"	0RD3300H609	R,CARBON FILM 330 1/2W 5 *MONO(+EAR)
R301(20")	0RN2701F409	R,METAL FILM 2.7K 1/6W 1%
"	0RN2201F409	R,METAL FILM 2.2K 1/6W 1% *ORION CPT
"(21")	0RN3301F409	R,METAL FILM 3.3K 1/6W 1%
"(14")	0RN1801F409	R,METAL FILM 1.8K 1/6W 1%
R302(20")	0RD1303F609	R,CARBON FILM 130K 1/6W 5
"	0RN1003F409	R,METAL FILM 100K 1/6W 1*ORION CPT
"(21")	0RD1503F609	R,CARBON FILM 150K 1/6W 5
"(14")	0RD1203F609	R,CARBON FILM 120K 1/6W 5
R304(20")	0RN0121J607	R,METAL FILM OXIDE 1.2 1W 5% TA62
"	0RN0101J607	R,METAL FILM OXIDE 1 1W 5% *ORION CPT
"(21")	0RN0680J607	R,METAL FILM OXIDE 0.68 1W 5% TA62
R305	0RD0202F609	R,CARBON FILM 20 1/6W 5 TA52
R306(21")	0RS2200K607	R,METAL FILM OXIDE 220 2W 5%
"	0RS2200K607	R,METAL FILM OXIDE 220 2W 5%*ORION CPT
"(20")	0RS1800K607	R,METAL FILM OXIDE 180 2W 5%

LOCA. NO	PART NO	DESCRIPTION
R307	0RN3301F409	R,METAL FILM 3.3K 1/6W 1%
"	0RN3302F409	R,METAL FILM 33K 1/6W 1%*ORION CPT
"(20")	0RN3602F409	R,METAL FILM 36K 1/6W 1%
"(14")	0RN3901F409	R,METAL FILM 3.9K 1/6W 1%
R308	0RD0562H609	R,CARBON FILM 56 1/2W 5
"(14")	0RD0752H609	R,CARBON FILM 75 1/2W 5
R309	0RD0562H609	R,CARBON FILM 56 1/2W 5
"(14")	0RD0752H609	R,CARBON FILM 75 1/2W 5
R32	0RD2401F609	R,CARBON FILM 2.4K 1/6W 5
R33	0RD1000F609	R,CARBON FILM 100 1/6W 5
R36	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R37	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R402	0RS2702K607	R,METAL FILM OXIDE 27K 2W 5%
"	0RS1502K607	R,METAL FILM OXIDE 15K 2W 5%*ORION CPT
"(14")	0RS2202K607	R,METAL FILM OXIDE 22K 2W 5%
R42	0RD1000F609	R,CARBON FILM 100 1/6W 5
R501	0RD3900F609	R,CARBON FILM 390 1/6W 5
R502	0RD1800F609	R,CARBON FILM 180 1/6W 5
R503	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R504	0RD4702F609	R,CARBON FILM 47K 1/6W 5
R505	0RD3001F609	R,CARBON FILM 3K 1/6W 5
R506	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R507	0RD1000F609	R,CARBON FILM 100 1/6W 5
R508	0RD3300F609	R,CARBON FILM 330 1/6W 5
R510	0RD1200F609	R,CARBON FILM 120 1/6W 5
R511	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R513	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R52	0RD1000F609	R,CARBON FILM 100 1/6W 5
R520	0RD1200F609	R,CARBON FILM 120 1/6W 5
R521	0RD2200F609	R,CARBON FILM 220 1/6W 5
R522	0RD2200F609	R,CARBON FILM 220 1/6W 5
R525	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R531	0RD2403F609	R,CARBON FILM 240K 1/6W 5
"(14")	0RD1303F609	R,CARBON FILM 130K 1/6W 5
R532	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R533	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R534	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R535	0RD1501F609	R,CARBON FILM 1.5K 1/6W 5
R536	0RD1503F609	R,CARBON FILM 150K 1/6W 5
R538	0RD1000F609	R,CARBON FILM 100 1/6W 5
R539	0RD3300F609	R,CARBON FILM 330 1/6W 5
R549	0RD3001F609	R,CARBON FILM 3.0K 1/6W 5
R550	0RD2702F609	R,CARBON FILM 27K 1/6W 5
R551	0RD1502F609	R,CARBON FILM 15K 1/6W 5
R552	0RD1502F609	R,CARBON FILM 15K 1/6W 5
R554	0RD9102F609	R,CARBON FILM 91K 1/6W 5
R555	0RN3902F409	R, METAL FILM 39K 1/6W 1%
R556	0RD1201F609	R,CARBON FILM 1.2K 1/6W 5
R557	0RD5100F609	R,CARBON FILM 510 1/6W 5
R566	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R567	0RD2201F609	R,CARBON FILM 2.2K 1/6W 5
R568	0RD5600F609	R,CARBON FILM 560 1/6W 5
R59	0RD2200F609	R,CARBON FILM 220 1/6W 5
R601	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
"	0RD3901F609	R,CARBON FILM 3.9K 1/6W 5 *RF.ST
R602	0RD2701F609	R,CARBON FILM 2.7K 1/6W 5
"	0RD1801F609	R,CARBON FILM 1.8K 1/6W 5 *RF.ST
R603	0RD0331H609	R,CARBON FILM 3.3 1/2W 5

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
R604	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
"	0RD3901F609	R,CARBON FILM 3.9K 1/6W 5 *RF.ST
R606	0RD0331H609	R,CARBON FILM 3.3 1/2W 5
R608	0RD2701F609	R,CARBON FILM 2.7K 1/6W 5
"	0RD1801F609	R,CARBON FILM 1.8K 1/6W 5 *RF.ST
R610	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
⚠ R612	0RD1500F609	R,CARBON FILM 150 1/6W 5
R613	0RD6802F609	R,CARBON FILM 68K 1/6W 5
R615	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R616	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R63	0RD2200F609	R,CARBON FILM 220 1/6W 5
R631	0RD3001F609	R,CARBON FILM 3K 1/6W 5
R632	0RD3901F609	R,CARBON FILM 3.9K 1/6W 5
R633	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R634	0RD6801F609	R,CARBON FILM 6.8K 1/6W 5
R635	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R637	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R651	0RD2200F609	R,CARBON FILM 220 1/6W 5
R652	0RD1501F609	R,CARBON FILM 1.5K 1/6W 5
R653	0RD4700F609	R,CARBON FILM 470 1/6W 5
R654	0RD3301F609	R,CARBON FILM 3.3K 1/6W 5
R655	0RD9101F609	R,CARBON FILM 9.1K 1/6W 5
R656	0RD1500F609	R,CARBON FILM 150 1/6W 5
R657	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R658	0RD2200F609	R,CARBON FILM 220 1/6W 5
R659	0RD3000F609	R,CARBON FILM 300 1/6W 5
R660	0RD2200F609	R,CARBON FILM 220 1/6W 5
R662	0RD2400F609	R,CARBON FILM 240 1/6W 5
R663	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R664	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R665	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R666	0RD1000F609	R,CARBON FILM 100 1/6W 5
R667	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R668	0RD1000F609	R,CARBON FILM 100 1/6W 5
R68	0RD1000F609	R,CARBON FILM 100 1/6W 5
R680	0RD3902F609	R,CARBON FILM 39K 1/6W 5
R681	0RD4703F609	R,CARBON FILM 470K 1/6W 5
R682	0RD1502F609	R,CARBON FILM 15K 1/6W 5
R686	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R687	0RD4702F609	R,CARBON FILM 47K 1/6W 5
R688	0RD4702F609	R,CARBON FILM 47K 1/6W 5
R689	0RD2201F609	R,CARBON FILM 2.2K 1/6W 5
R690	0RD8201F609	R,CARBON FILM 8.2K 1/6W 5
R70	0RD1000F609	R,CARBON FILM 100 1/6W 5
R72	0RD1000F609	R,CARBON FILM 100 1/6W 5
R720	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R721	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R723	0RD2200F609	R,CARBON FILM 220 1/6W 5
R724	0RD2200F609	R,CARBON FILM 220 1/6W 5
R725	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R727	0RD0102F609	R,CARBON FILM 10 1/6W 5
R74	0RD1000F609	R,CARBON FILM 100 1/6W 5
R742	0RD5100H609	R,CARBON FILM 510 1/2W 5
R745	0RS0332H609	R,METAL FILM OXIDE 33 1/2W 5
R747	0RD5101F609	R,CARBON FILM 5.1K 1/6W 5
"	0RD5101F609	R,CARBON FILM 5.1K 1/6W 5*ORION CPT
"(20")	0RD5101F609	R,CARBON FILM 5.1K 1/6W 5
"(14")	0RD1000F609	R,CARBON FILM 100 1/6W 5

LOCA. NO	PART NO	DESCRIPTION
R750	0RD4701H609	R,CARBON FILM 4.7K 1/2W 5
R752	0RD1201H609	R,CARBON FILM 1.2K 1/2W 5
R753	0RD8201H609	R,CARBON FILM 8.2K 1/2W 5
R754	0RD2001F609	R,CARBON FILM 2.0K 1/6W 5
R801	0RD2701F609	R,CARBON FILM 2.7K 1/6W 5
R802	0RD2201F609	R,CARBON FILM 2.2K 1/6W 5
R803	0RD6800F609	R,CARBON FILM 680 1/6W 5
R805	180-A01P	R,CEMENT 0.13 OHM 2 W 5% *AV STEREO
"	180-A01N	R,CEMENT 0.18 OHM 2 W 5% *MONO
R806	0RD2401F609	R,CARBON FILM 2.4K 1/6W 5
R809	0RS4702K607	R,METAL FILM OXIDE 47K 2W 5%
R811	180-822N	R,RWR 7W 1.0 OHM J PD
R812	180-C02H	R,CARBON COMPOSIT RC 1/2W 8.2M K
R813	0RS0101H609	R,METAL FILM OXIDE 1.0 1/2W 5
R814	0RD4702F609	R,CARBON FILM 47K 1/6W 5
R815	0RD0272H609	R,CARBON FILM 27 1/2W 5 *AV STEREO
"	0RD0182H609	R,CARBON FILM 18 1/2W 5 *MONO
R816	0RD2001F609	R,CARBON FILM 2.0K 1/6W 5
R817	0RS2202K607	R,METAL FILM OXIDE 22K 2W 5%
R90	0RD6200F609	R,CARBON FILM 620 1/6W 5
R901	0RD2200F609	R,CARBON FILM 220 1/6W 5
R902	0RD2200F609	R,CARBON FILM 220 1/6W 5
R903	0RD2200F609	R,CARBON FILM 220 1/6W 5
R904(14")	0RD2200F609	R,CARBON FILM 220 1/6W 5
R905(14")	0RD2200F609	R,CARBON FILM 220 1/6W 5
R907	0RS1501H609	R,METAL FILM OXIDE 1.5K 1/2W 5
R908	0RS1501H609	R,METAL FILM OXIDE 1.5K 1/2W 5
R909	0RS1501H609	R,METAL FILM OXIDE 1.5K 1/2W 5
R911	0RD2204H609	R,CARBON FILM 2.2M 1/2W 5
SWITCH		
SW01	140-315A	SWITCH,TACT VERT
SW02	140-315A	SWITCH,TACT VERT
SW03	140-315A	SWITCH,TACT VERT
SW04	140-315A	SWITCH,TACT VERT
SW05	140-315A	SWITCH,TACT VERT
SW06	140-315A	SWITCH,TACT VERT
⚠ SW801	6600VM2002A	SWITCH,PUSH IEC 4A/128A250V 6.
CRYSTAL & FILTER		
T501	166-C04C	FILTER,TRAP TPWA02B-TF21
T503	166-C02D	FILTER,TRAP TPS6.0MB-TF21
T504	166-C02B	FILTER,TRAP TPS4.5MB
T801	150-F06W	FILTER(CIRC),LINE SQE2930 36MH
X501	156-A01C	CRYSTAL 3.579545 90 OHM
X502	156-A01V	CRYSTAL,STD 80 OHM
Z101	166-A01Z	FILTER(CIRC),SAW OFWK2973M 38MHZ.
"	166-A01M	FILTER, 0FWK6265K(MONO)
Z652	166-B02E	FILTER,B.P FILTER SFSH6.5MCB-TF21
Z653	166-B02D	FILTER,B.P FILTER SFSH6.0MCB-TF21
Z654	166-B02A	FILTER,SFSH4.5MCB-TF21
Z651	166-B02C	FILTER,B.P FILTER SFSH5.5MCB-TF21
SUB(A/V STEREO) BOARD		
CS01	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
CS02	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
CS03	0CQ4721N509	C,POLYESTER(MYLAR) 0.0047U 100V K

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

LOCA. NO	PART NO	DESCRIPTION
CS04	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
CS05	0CQ1221N419	C,POLYESTER(MYLAR) 0.0012U 100V J
CS06	0CQ5621N509	C,POLYESTER(MYLAR) 5600PF 100V K
CS07	181-007J	CAPACITOR MPE 50V 0.56UF J(TR)
CS08	0CE2251K636	C,ELECTROLYTIC 2.2UF SM 50V M
CS09	0CE2251K636	C,ELECTROLYTIC 2.2UF SM 50V M
CS10	0CE2251K636	C,ELECTROLYTIC 2.2UF SM 50V M
CS11	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
CS12	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
CS13	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
CS14	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
CS15	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
CS16	0CQ1831N509	C,POLYESTER(MYLAR) 0.018U 100V K
CS17	0CQ2231N509	C,POLYESTER(MYLAR) 0.022MF 100V K
CS18	0CQ1831N509	C,POLYESTER(MYLAR) 0.018U 100V K
CS19	0CQ5621N509	C,POLYESTER(MYLAR) 5600PF 100V K
CS20	0CQ5621N509	C,POLYESTER(MYLAR) 5600PF 100V K
CS21	0CE474DK618	C,AL.ELECTROLYTIC 0.47UF STD 50V
CS22	181-007H	C,MPE 50V 0.47UF J(TR)
CS23	181-007H	C,MPE 50V 0.47UF J(TR)
CS25	181-007H	C,MPE 50V 0.47UF J(TR)
CS26	181-007H	C,MPE 50V 0.47UF J(TR)
CS27	0CE226DF618	C,ELECTROLYTIC 22UF STD 16V M
CS28	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CS29	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
ICS01	0ISG742900A	IC,TDA7429 42P,SDIP BK DIGITAL CO
LS01	0LA0102K119	INDUCTOR,10UH K
RS01	0RD5601F609	R,CARBON FILM 5.6K 1/6W 5
RS02	0RD5601F609	R,CARBON FILM 5.6K 1/6W 5
RS03	0RD2701F609	R,CARBON FILM 2.7K 1/6W 5
RS04	0RD2701F609	R,CARBON FILM 2.7K 1/6W 5
RS05	0RD1000F609	R,CARBON FILM 100 1/6W 5
RS06	0RD1000F609	R,CARBON FILM 100 1/6W 5

SUB(TELETEXT) BOARD

C702	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C703	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
C704	0CX1800K409	C,TUBULA(T.C) 18PF 50V J
C705	0CX8R20K509	C,TUBULA(T.C) 8.2P 50V K
C706	0CN1040K949	C,TUBULA(HIGH DIELE) 0.1M 50V Z
C707	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C708	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C709	181-442Z	C,POLYESTER(MYLAR) 0.1MF 50V K
C710	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C711	0CE476DD618	C,ELECTROLYTIC 47UF STD 10V M
C712	0CE476DD618	C,ELECTROLYTIC 47UF STD 10V M
C713	0CN1020K519	C,TUBULA(HIGH DIELE) 1000PF 50V K
IC701	0IPH528100J	IC,SAA5281ZP/R 52SDIP BK TXT DECO
IC702	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
L701	0LA0331K119	INDUCTOR 3.3UH K 2.3*3.4 TP
Q701	0TR945009AA	TR,KSC945C-Y
R702	0RD3301F609	R,CARBON FILM 3.3K 1/6W 5
R703	0RD2702F609	R,CARBON FILM 27K 1/6W 5
R704	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R705	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R706	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R707	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R708	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R709	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R710	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R711	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R712	0RD8200F609	R,CARBON FILM 820 1/6W 5
R713	0RD1000F609	R,CARBON FILM 100 1/6W 5
R715	0RD1000F609	R,CARBON FILM 100 1/6W 5
R716	0RD1000F609	R,CARBON FILM 100 1/6W 5
R717	0RD4700F609	R,CARBON FILM 470 1/6W 5
R718	0RD2200F609	R,CARBON FILM 220 1/6W 5
X701	156-A02X	CRYSTAL,STD SUNNY RADIAL 27MHZ 25PPM

ACCESSORIES

	132-199D	ANTENNA,ROD(W/ADAPTER L=650)
	132-210H	ANTENNA,ROD,W/ADAPTER L=650 PAL
	132-210J	ANTENNA,2 POLE 3 SECTION 700MM 750MM P
	132-210G	ANTENNA,ROD W/ADAPTER L=500
	3828VA0141B	MANUAL,OWNERS MC84A . GS EN 007?/008?TX , ,
	3828VA0141D	MANUAL,OWNERS MC84A . LG EN 017F TX 340M BSC
	3828VA0141N	MANUAL,OWNERS MC84A . GS EN TX.BASIC
	3828VA0164L	MANUAL,OWNERS MC84A .LG PL TX 141G
	6710V00017E	REMOTE CONTROLLER MC84A , MONO(W/O EYE),24KEY
	6710V00017F	REMOTE CONTROLLER MC84A , MONO(W EYE),25KEY
	6710V00017L	REMOTE CONTROLLER MC84A ,W/O TXT,W/EYE,NO BRAND
	6710V00017P	REMOTE CONTROLLER MC-84A(STEREO) NO TXT,W/EYE,G/
	6710V00017Q	REMOTE CONTROLLER MC-84A MONO W/O EYE,GS
	6710V00017J	REMOTE CONTROLLER MC-84A MONO W/O TXT,W/EYE
	6710V00017H	REMOTE CONTROLLER MC-84A STEREO(W/O EYE)
	6710V00020E	REMOTE CONTROLLER MC84A MONO(W EYE), 48KEY
	6710V00020F	REMOTE CONTROLLER MC84A MONO(W/O EYE),45KEY
	6710V00020M	REMOTE CONTROLLER MC84A W/EYE,TXT NO BRAND
	6710V00007K	REMOTE CONTROLLER MC84A (TXT,EYE,STEREO)

MISCELLANEOUS

	303-F62A	COVER,TUNER
⚠ F801	0FT4001B53C	FUSE,TIME LAG 4000MA 250 V
PA01	106-047G	PRE-AMP SBX2020-82 38.0KHZ
PJ201	381-091A	SOCKET,SCART JACK 21PIN
"	6612VJH004B	JACK,RCA PJ6056B 4P MONO
PJ241	6613V00006A	JACK ASSY,3P+EAR(PJ6062A)
"	6613V00006B	JACK ASSY,2P+EAR(PJ6062B)
⚠ P801	174-009E	CORD,POWER(W/HOLD,HOUSING,L=2)0±4.0
P901	6620VBC001A	SOCKET,CPT 29.1 PHI SINGLE(PCS62903A)
"	6620VBA001A	SOCKET,CPT PCS633A 14"
SG901	165-004A	SPARK GAP AG20PT 152F-L3N/S-23
TH801	163-012C	THERMISTOR J502P54E180M220
"	163-054F	THERMISTOR J502P84D140M290Q 14"
TU101	6700VPF002A	TUNER TELE9-096A ALPS PAL 38.0MHZ FS
"	6700VPF003B	TUNER TU8PSB02D LGEC PAL DIN 38.0MHZ
⚠ T701	6174Z-8005A	FBT FTSPN13-T8005A 21"
"	6174Z-8005E	FBT FTSPN13-T8005E 20"
"	6174Z-8005F	FBT FTSPN13-T8005F 14"
"	6174V-8003B	FBT FSA41012M 20,21" D/W
"	6174Z-8005G	FBT FTSPN13-T8005G 21" LGEPL
VD801	164-003D	VARISTOR,SVC 561D-14A
X01	166-E05C	RESONATOR,RESO, CST8.00MTW-T

SUB (TELETEXT) BOARD

C701	181-007C	C,MPE 50V 0.1UF J

LOCA. NO	PART NO	DESCRIPTION
C702	181-007C	C,MPE 50V 0.1UF J
C703	0CE476DF618	C,ELECTROLYTIC 47UF STD 16V M
C704	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C705	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
C706	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C707	0CC3300K415	C,CERAMIC(TEMP COMP) 33P 50V J
C708	0CC3300K415	C,CERAMIC(TEMP COMP) 33P 50V J
C709	0CE474DK618	C,ELECTROLYTIC 0.47UF STD 50V M
C710	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C711	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
C712	0CE476DF618	C,ELECTROLYTIC 47UF STD 16V M
C713	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
IC701	0IPH526100A	IC,SAA5261PS/110 52P SDIP BK PARS
IC702	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
IC703	0IAL240210A	IC,AT24C02-10PC 8D EEPROM(2K,IIC)
IC704	0IKE744200A	IC,KIA7442P TO-92 NEGA.RESET(4.2V
L701	0LA0102K119	INDUCTOR,10UH K
Q701	0TR945009AA	TR,KSC945C-Y,TP,SS
Q702	0TR120209AD	TR,KSR1202 TP SAMSUNG TO92S
R701	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R702	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R703	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R704	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R705	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R706	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R707	0RD2200F609	R,CARBON FILM 220 1/6W 5
R708	0RD2702F609	R,CARBON FILM 27K 1/6W 5
R709	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R710	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R711	0RD4700F609	R,CARBON FILM 470 1/6W 5
R712	0RD1501F609	R,CARBON FILM 1.5K 1/6W 5
R713	0RD1301F609	R,CARBON FILM 1.3K 1/6W 5
R714	0RD1501F609	R,CARBON FILM 1.5K 1/6W 5
R715	0RD1301F609	R,CARBON FILM 1.3K 1/6W 5
R716	0RD1501F609	R,CARBON FILM 1.5K 1/6W 5
R717	0RD1301F609	R,CARBON FILM 1.3K 1/6W 5
R718	0RD1000F609	R,CARBON FILM 100 1/6W 5
R719	0RD2400F609	R,CARBON FILM 240 1/6W 5
R72	0RD1000F609	R,CARBON FILM 100 1/6W 5
R720	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R721	0RD1003F609	R,CARBON FILM 100K 1/6W 5
R723	0RD2200F609	R,CARBON FILM 220 1/6W 5
R724	0RD2200F609	R,CARBON FILM 220 1/6W 5
R725	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
R727	0RD0102F609	R,CARBON FILM 10 1/6W 5
X701	156-A02B	CRYSTAL,12.000000 16PF 30 OHM BULK

SUB(RF STEREO) BOARD

CN01	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN02	0CE226DF618	C,ELECTROLYTIC 22UF STD 16V M
CN03	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
CN04	0CE227DD618	C,ELECTROLYTIC 220UF STD 10V M
CN05	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN06	0CE335DK618	C,ELECTROLYTIC 3.3UF STD 50V M
CN07	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN10	0CE227DD618	C,ELECTROLYTIC 220UF STD 10V M
CN11	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN12	0CQ3321N509	C,POLYESTER(MYLAR) 0.0033U 100V K

LOCA. NO	PART NO	DESCRIPTION
CN13	0CQ3321N509	C,POLYESTER(MYLAR) 0.0033U 100V K
CN14	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN15	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN16	0CE107DD618	C,ELECTROLYTIC 100UF STD 10V M
CN17	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN18	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN19	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN22	181-007G	C,MPE 50V 0.33UF J
CN23	181-007G	C,MPE 50V 0.33UF J
CN24	181-007G	C,MPE 50V 0.33UF J
CN25	181-007G	C,MPE 50V 0.33UF J
CN26	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN27	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN29	0CN1030F679	C,TUBULA(HIGH DIELE) 0.01MF 16V M
CN30	0CE106DF618	C,ELECTROLYTIC 10UF STD 16V M
CN31	0CX5600K409	C,TUBULA(T.C) 56P 50V J
CN32	0CX5600K409	C,TUBULA(T.C) 56P 50V J
CN33	0CN4710K519	C,TUBULA(HIGH DIELE) 470PF 50V K
CN34	0CC0200K115	C,CERAMIC(TEMP COMP) 2P 50V D
CN35	0CC0200K115	C,CERAMIC(TEMP COMP) 2P 50V D
CN36	0CE226DF618	C,ELECTROLYTIC 22UF STD 16V M
ICN01	0ITF444500C	IC,TDA4445B 16P,DIP BK QPS PROCES
ICN02	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
ICN03	0IIT341000H	IC,MSP3410D 52P,SDIP BK B4-VERSIO
ICN04	0ISS754200A	IC,KA7542Z RESET TO92 TP 4.2V
LN01	150-E08L	COIL,VAR,07S 1B 38.0MHZ
LN02	0LA0222K119	INDUCTOR,22UH K
LN03	0LA0102K119	INDUCTOR,10UH K
LN04	0LA0102K119	INDUCTOR,10UH K
QN01	0TR733009AA	TR,KSA733C-Y TP SANSUNG
QN02	0TR733009AA	TR,KSA733C-Y TP SANSUNG
RN03	0RD1000F609	R,CARBON FILM 100 1/6W 5
RN04	0RD1000F609	R,CARBON FILM 100 1/6W 5
RN05	0RD1002F609	R,CARBON FILM 10K 1/6W 5
RN06	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
RN07	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
RN08	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
RN09	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
RN10	0RD2200F609	R,CARBON FILM 220 1/6W 5
RN11	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
RN12	0RD4701F609	R,CARBON FILM 4.7K 1/6W 5
RN13	0RD3901F609	R,CARBON FILM 3.9K 1/6W 5
RN14	0RD3901F609	R,CARBON FILM 3.9K 1/6W 5
RN15	0RD0102F609	R,CARBON FILM 10 1/6W 5
XN01	156-A02M	CRYSTAL,18.432000 10PF 20 OHM BULK

SUB(TELETEXT:MA-PL) BOARD

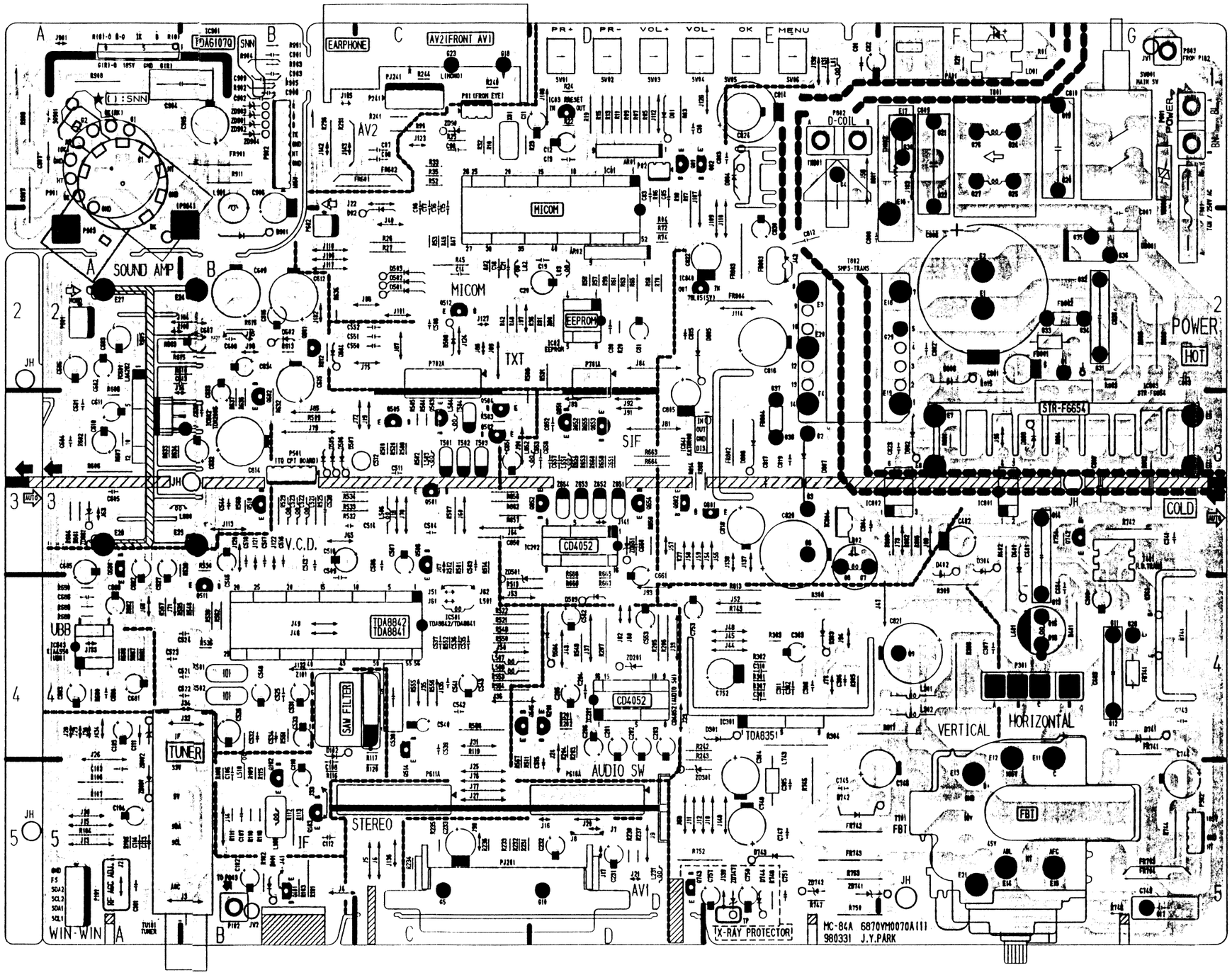
C702	0CN1030F679	CAPACITOR 10000P 16V M
C703	0CE107DD618	C,ELECTROLYTIC 100UF STD10V M
C704	0CX1800K409	CAPACITOR 18P 50V J
C705	0CX8R20K509	C TUBULA(T.C) 8.2P 50V K
C706	0CN1040K949	C,TUBULAR(HIGH DIELEC)0.1M 50V Z
C707	181-442Z	C,POLYESTER PE,ECQ-B1H104KF3(TR)
C708	181-442Z	C,POLYESTER PE,ECQ-B1H104KF3(TR)
C709	181-442Z	C,POLYESTER PE,ECQ-B1H104KF3(TR)
C710	0CN1030F679	CAPACITOR 10000P 16V M
C711	0CE476DD618	C,AL.ELECTROLYTIC 47UF STD10V M
C712	0CE476DD618	C,AL.ELECTROLYTIC 47UF STD10V M

LOCA. NO	PART NO	DESCRIPTION
C713	0CN1020K519	CAPACITOR 1000P 50V K
IC701	0IPH528100H	IC,SAA5281ZP/H 52SDIP BK TXT DECO
IC702	0IKE780500K	IC,KIA7805PI 3P(TO-220IS) 5V,1A
L701	0LA0331K119	INDUCTOR,3.3UH K
Q701	0TR945009AA	TR,KSC945C-Y TP SAMSUNG
R702	0RD3301F609	R,CARBON FILM 3.3K 1/6W 5
R703	0RD2702F609	R,CARBON FILM 27K 1/6W 5
R704	0RD1002F609	R,CARBON FILM 10K 1/6W 5
R705	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R706	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R707	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R708	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R709	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R710	0RD1601F609	R,CARBON FILM 1.6K 1/6W 5
R711	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
R712	0RD8200F609	R,CARBON FILM 820 1/6W 5
R713	0RD1000F609	R,CARBON FILM 100 1/6W 5
R715	0RD1000F609	R,CARBON FILM 100 1/6W 5
R716	0RD1000F609	R,CARBON FILM 100 1/6W 5
R717	0RD4700F609	R,CARBON FILM 470 1/6W 5
R718	0RD2200F609	R,CARBON FILM 220 1/6W 5
R719	0RD1001F609	R,CARBON FILM 1.0K 1/6W 5
X701	156-A02X	CRYSTAL,STANDARD HC49U 27.000MHZ

LOCA. NO	PART NO	DESCRIPTION

PRINTED CIRCUIT BOARD

MAIN



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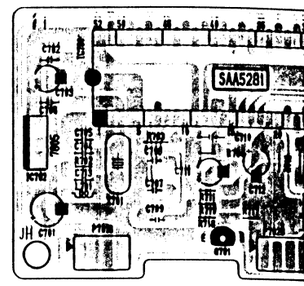
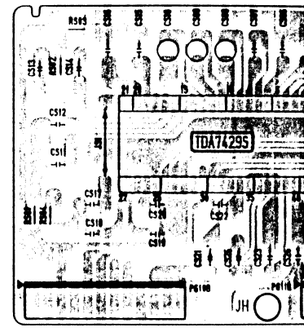


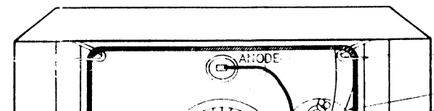
AV STEREO



COMPONENT LOCATION GUIDE(MAIN)

AR01	D1	C514	C3	C746	F5	D805	D3	IC801	F3	Q506	C4	R107	A5	R538	B4	R754	G3
AR02	D2	C515	D5	C747	E5	D806	F2	IC802	F3	Q510	B3	R108	B5	R539	B3	R801	F3
C01	E1	C516	B4	C748	E5	D807	E3	IC803	G2	Q511	B4	R109	B5	R540	B4	R802	F3
C02	E1	C517	B4	C749	G5	D808	E3	IC804	E3	Q512	C2	R110	B5	R548	C4	R803	G2
C03	D1	C518	B4	C750	E5	D901	B2	IC840	D2	Q514	C5	R111	B5	R549	D4	R804	G3
C05	D2	C521	A4	C751	E5	DB801	G2	IC841	E3	Q516	C4	R112	B5	R550	C4	R805	G2

WIR



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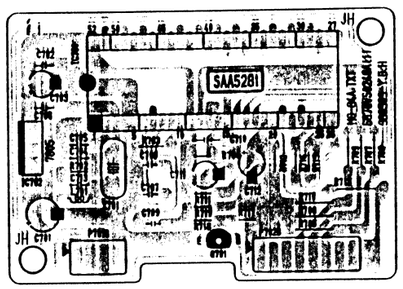
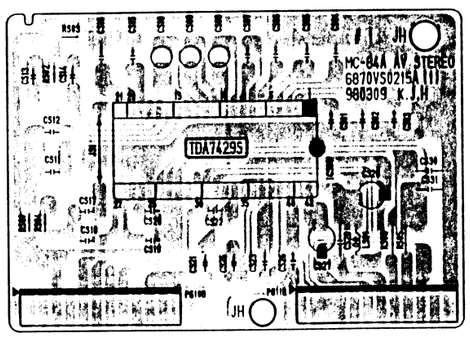
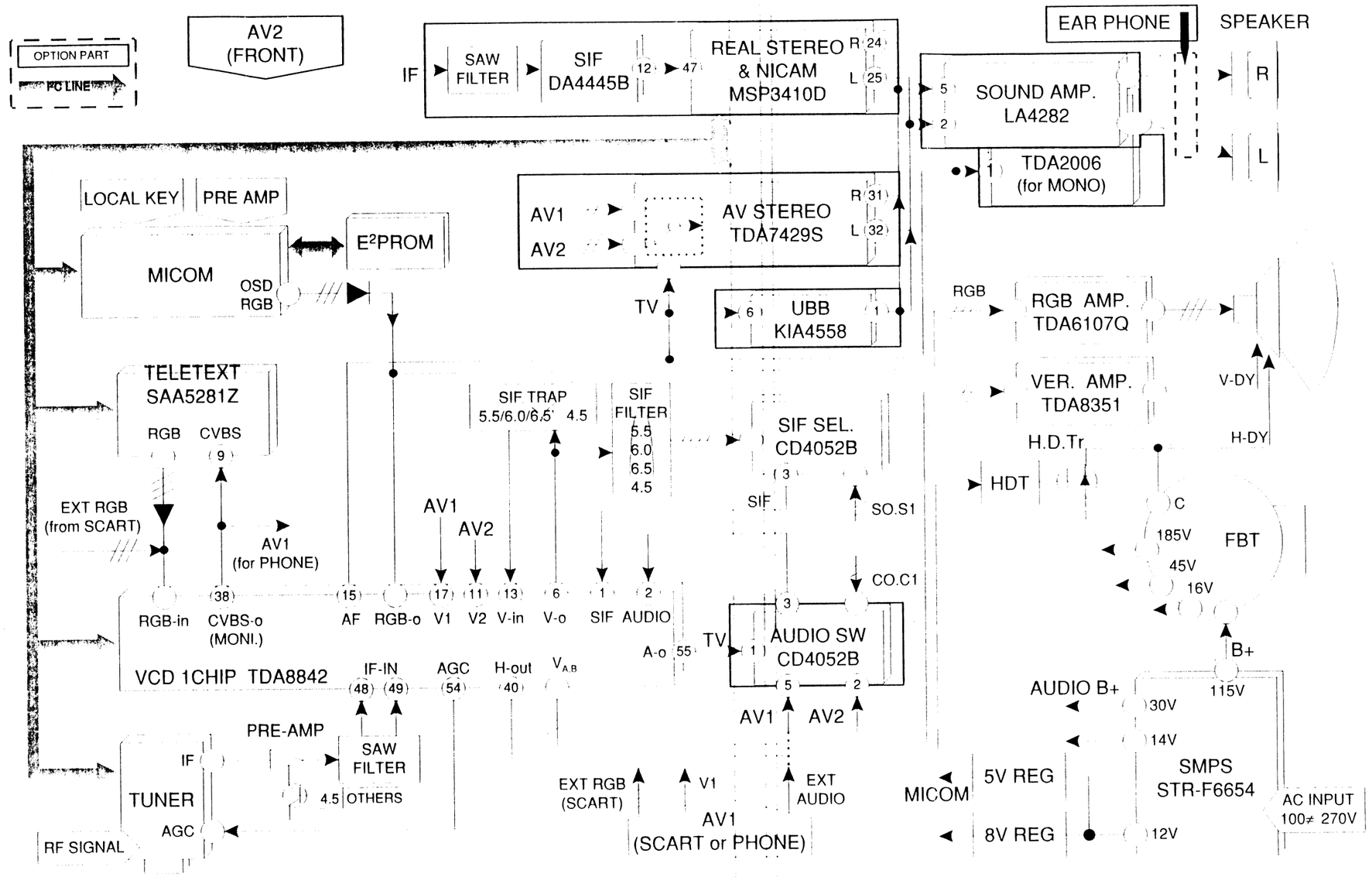


AV STEREO

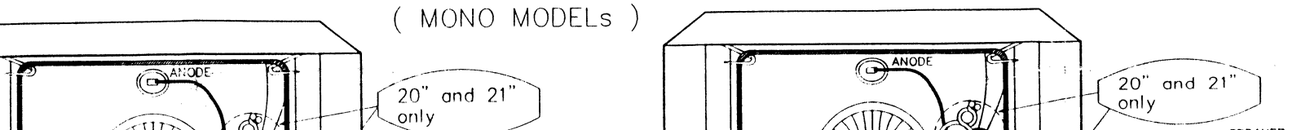


BLOCK DIAGRAM

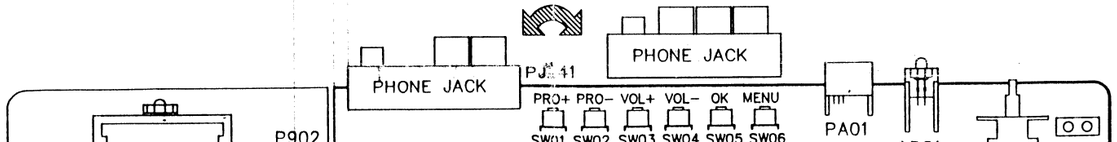


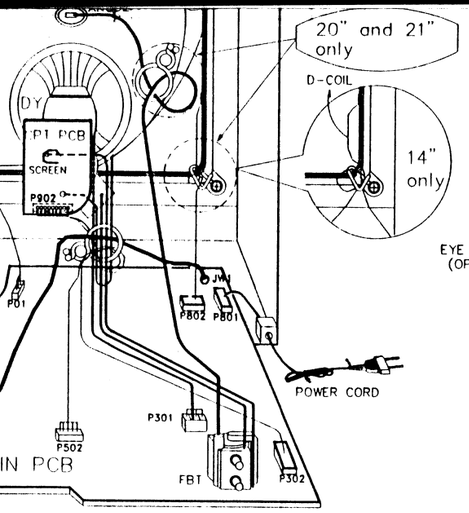
WIRING DIAGRAM

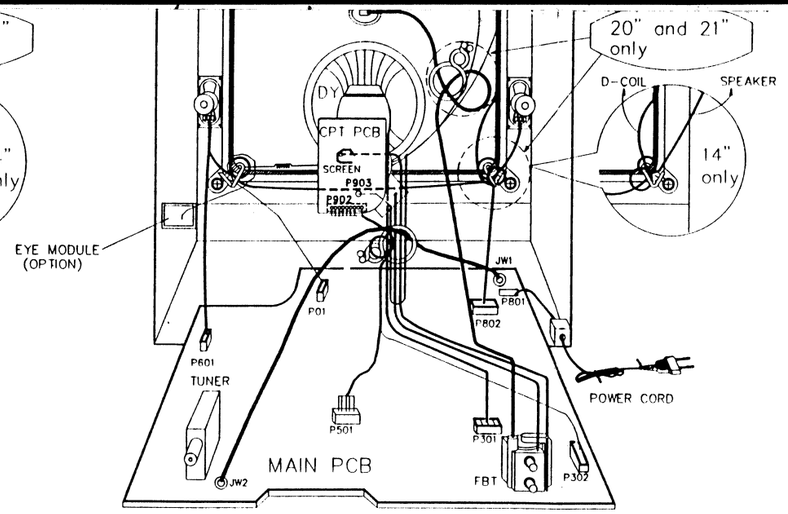
(MONO MODELs)



ALIGNMENT/TEST POINT LOCATION GUIDE



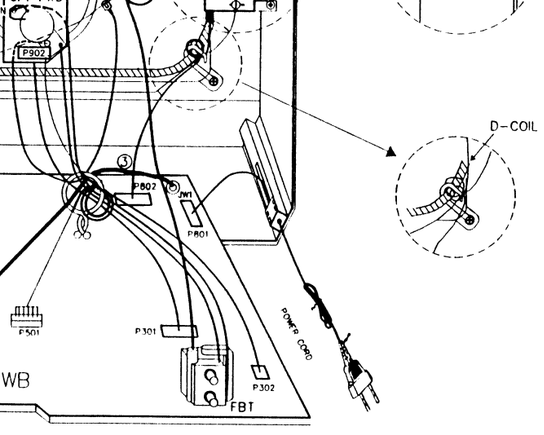




GRAM OF MC-84A

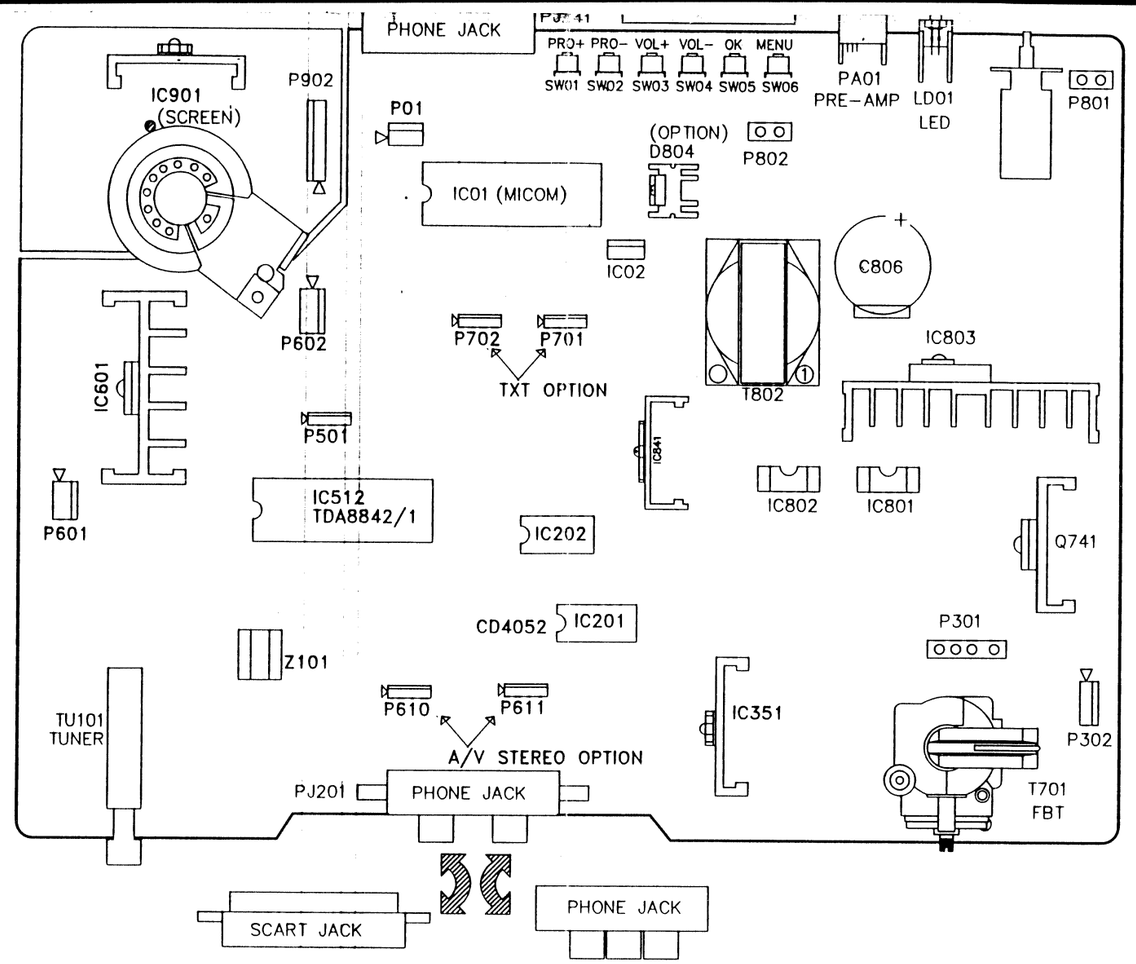
IAGRAM OF MC-84A CHASSIS
LE AS FOLLOW MODELS:
STEREO, SOUND MAX MODELs)

FOR 20", 21"

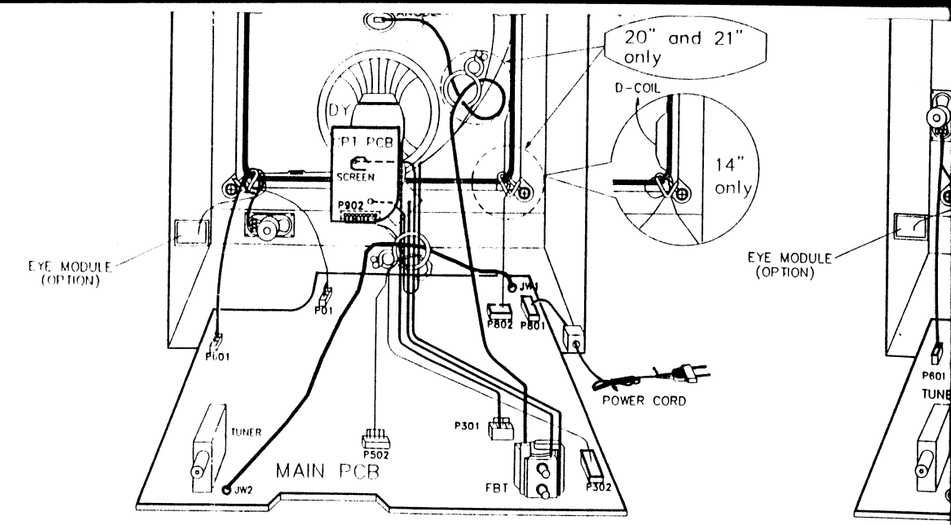


WB

POWER CORD ASSY



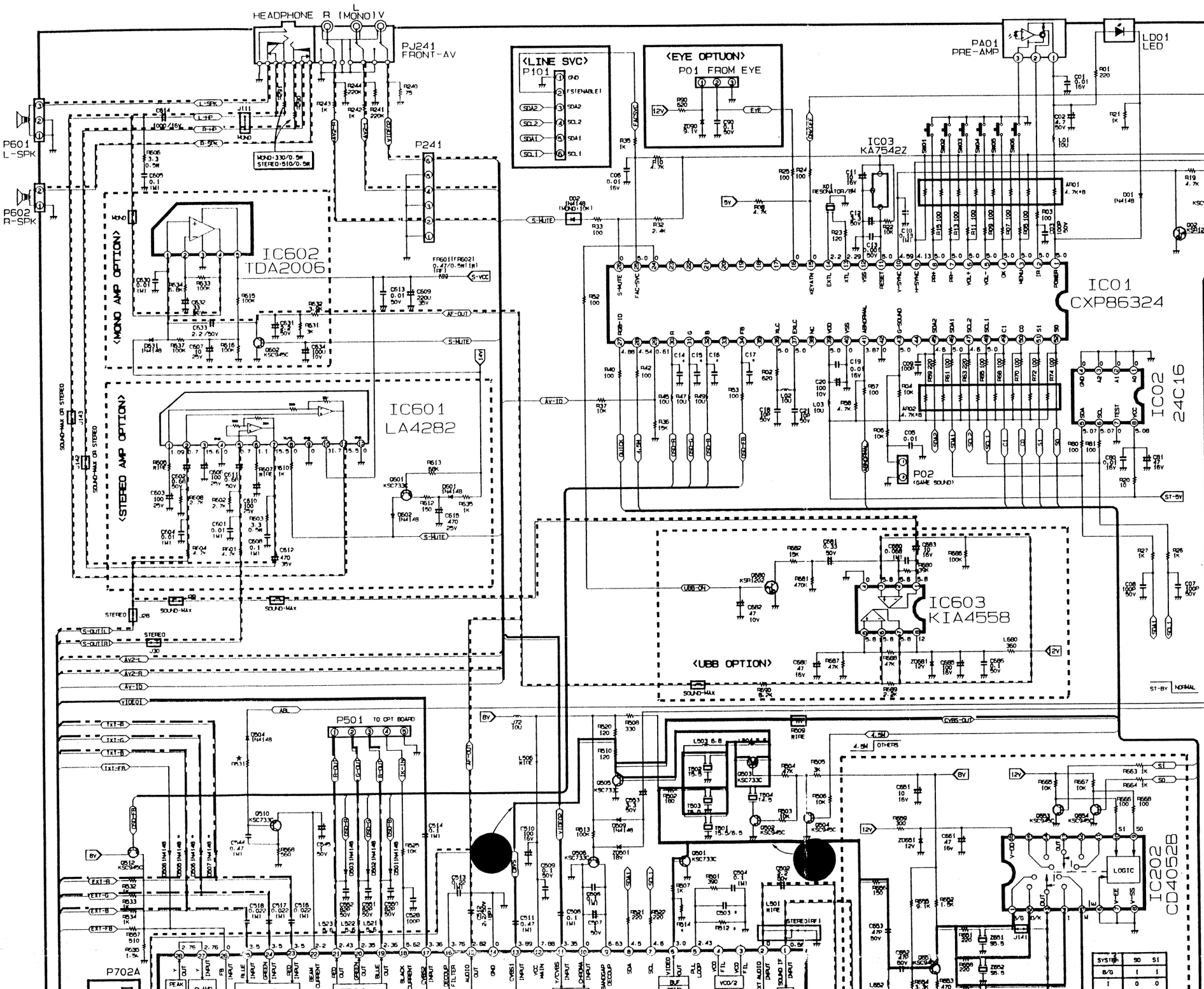
C03 D1	C518 B4	C750 E5	D901 B2	IC840 D2	Q514 C5	R111 B5	R549 D4	R804 G3	
C05 D2	C521 A4	C751 E5	DB801 G2	IC841 E3	Q516 C4	R112 B5	R550 C4	R805 G2	
C06 C2	C522 A4	C752 E4	F801A G2	IC901 A1	Q601 B2	R113 B5	R551 B4	R806 F3	
C07 C1	C523 A4	C753 D4	F801B G1	L01 E1	Q602 B3	R115 B5	R552 C4	R808 E3	
C08 C1	C524 B4	C757 E5	FB741 G4	L02 C2	Q651 D3	R116 B5	R553 C4	R809 G2	
C10 D1	C525 B4	C801 F2	FB801 G2	L03 D2	Q652 D3	R117 C4	R554 C4	R811 F1	
C11 D1	C526 B4	C802 F2	FB802 F2	L101 B5	Q653 D3	R118 B5	R555 C4	R812 G3	
C12 D1	C527 A4	C803 G2	FB803 E2	L231 D5	Q654 D3	R119 C4	R556 C4	R813 E4	
C13 D1	C528 B3	C804 E3	FB804 E3	L301 F4	Q680 A4	R120 C5	R557 A4	R814 D3	
C14 C2	C531 B4	C805 D3	FR601 B1	L302 F4	Q741 G4	R201 D4	R562 B4	R815 F3	
C15 C2	C532 B4	C806 F2	FR602 B1	L401 F4	Q742 G3	R202 D4	R566 C4	R816 F3	
C16 C2	C533 B4	C807 G2	FR703 G5	L501 C4	Q743 D5	R203 D5	R567 C5	R817 E4	
C17 C2	C534 B4	C808 E2	FR704 G5	L503 C3	Q801 E3	R204 D4	R568 B3	R901 B1	
C18 C2	C535 C4	C809 F2	FR741 G4	L504 C3	Q802 D3	R205 D4	R601 A3	R902 B1	
C19 D2	C536 C4	C810 G1	FR742 E5	L506 C3	R01 F1	R206 D4	R602 A3	R903 B1	
C20 D2	C537 C4	C811 G3	FR743 E5	L507 C4	R02 C2	R207 D4	R603 A2	R904 B1	
C21 C2	C538 C4	C812 E2	FR802 E3	L508 C4	R03 D1	R231 C5	R604 A3	R905 B1	
C80 D2	C539 C5	C813 E1	FR803 E2	L510 B4	R04 D2	R232 C5	R605 A2	R907 A2	
C81 D2	C540 C4	C814 E1	FR804 D2	L521 B3	R05 D1	R233 C5	R606 A3	R908 A1	
C90 C1	C541 C4	C815 D2	FR901 B1	L522 B3	R06 D2	R234 C5	R607 A3	R909 A1	
C101 A5	C542 C4	C816 E2	G1 G2	L523 B3	R07 D1	R235 C5	R608 A3	R911 B1	
C102 B5	C543 C4	C817 E3	G2 E3	L651 D3	R09 D1	R236 C5	R610 A2	SG901 A1	
C103 A5	C544 B3	C818 E3	G3 E3	L652 D3	R10 C1	R237 D5	R612 B2	SW01 D1	
C104 A5	C545 B3	C819 E3	G4 E1	L680 B3	R11 D1	R238 D5	R613 B2	SW02 D1	
C105 A4	C548 B4	C820 E3	G5 C5	L743 E5	R13 D1	R240 C1	R615 B2	SW03 D1	
C106 B5	C550 C2	C821 F4	G6 E3	L802 E3	R15 D1	R241 C1	R616 B2	SW04 D1	
C107 B5	C551 C2	C822 E2	G7 E3	L901 B2	R17 D2	R242 D4	R632 B3	SW05 E1	
C108 B5	C552 C2	C823 F3	G8 E3	LD01 F1	R18 D1	R243 D5	R633 A3	SW06 E1	
C110 B5	C553 D4	C824 E1	G9 F4	P01 C1	R19 D1	R244 C1	R634 A3	SW801 G1	
C111 A4	C601 A3	C829 G2	G10 D5	P02 D1	R20 D2	R290 B1	R635 B2	T401 G4	
C112 B5	C602 A2	C830 E2	G11 G4	P101 A5	R21 F1	R291 B1	R636 B3	T501 C3	
C113 A5	C603 A2	C901 B1	G12 G4	P102 B5	R22 D1	R301 E4	R637 B3	T502 C3	
C114 A5	C604 A3	C902 B1	G13 F4	P241 C1	R23 C1	R302 E4	R651 D3	T503 C3	
C201 D4	C605 A3	C903 B1	G14 F3	P302 G5	R24 D1	R303 E4	R652 D3	T504 C3	
C202 D4	C606 A2	C904 A1	G15 F4	P501 B3	R25 C1	R304 E4	R653 D3	T701 F5	
C203 D4	C607 B2	C905 B1	G16 F4	P601 A2	R26 C2	R305 E4	R654 D3	T801 F1	
C204 D4	C608 B2	C906 B2	G17 G5	P602 B2	R27 C2	R306 F4	R655 D3	T802 F3	
C205 D4	C609 B2	C907 A1	G18 C1	P803 G1	R32 C1	R307 E4	R656 C3	TH801 E2	
C206 D4	C610 A3	C908 B1	G19 G1	P901 A1	R33 C1	R308 E4	R657 C3	TH802 F1	
C231 D5	C611 A3	C909 B1	G20 G1	P902 B1	R35 C1	R309 F4	R658 D3	TU101 B5	
C232 D5	C612 B2	D01 D1	G21 F1	P903 A2	R36 D2	R401 G4	R659 D3	VD801 G1	
C233 C5	C613 A3	D02 C2	G22 F2	P904 B2	R37 D3	R402 F4	R660 D3	X01 C1	
C301 E4	C614 B3	D101 B5	G23 C1	P301A F4	R40 C2	R501 C4	R662 C3	X501 B4	
C302 E4	C615 B2	D102 B4	G24 F1	P301B F4	R42 C2	R502 C3	R663 D3	X502 B4	
C303 E4	C616 B2	D301 E4	G25 F1	P301C F4	R45 C2	R503 C3	R664 D3	Z101 C4	
C304 E5	C630 B3	D303 E4	G26 F1	P301D G4	R47 C2	R504 C3	R665 D4	Z651 D3	
C305 E5	C632 B3	D304 F3	G27 F1	P610A D5	R49 C2	R505 C3	R666 D4	Z652 D3	
C306 E4	C633 B3	D401 F4	G28 G4	P611A C5	R52 C1	R506 C3	R667 D4	Z653 D3	
C307 F4	C634 B2	D402 F4	G29 F2	P701A D2	R53 C2	R507 C3	R668 D4	Z654 D3	
C308 G4	C651 C3	D501 C2	G30 F1	P702A C2	R57 D2	R508 C3	R680 A4	ZD90 C1	
C309 E4	C652 D3	D502 C2	G31 G2	P801A G1	R58 D2	R509 B3	R681 A4	ZD101 A5	
C310 E4	C653 D3	D503 C2	G32 G2	P801B G1	R59 D2	R510 C3	R682 A4	ZD102 A4	
C311 E4	C657 D3	D504 D4	G33 F2	P802A E1	R61 D2	R511 D5	R686 A4	ZD201 D4	
C401 F4	C658 D3	D505 B3	G34 G2	P802B E1	R63 D2	R512 C4	R687 A4	ZD301 D5	
C402 F3	C659 C3	D506 B3	G35 G2	PA01 F1	R65 D2	R513 C4	R688 A4	ZD501 C4	
C403 G4	C660 D3	D507 B3	G36 G2	PJ201 C5	R68 D2	R514 C4	R689 A4	ZD651 D3	
C404 G4	C661 D4	D508 C2	G37 E3	PJ241 C1	R70 D2	R520 C3	R690 A4	ZD681 A3	
C502 D4	C680 A4	D509 D4	G38 E3	Q01 D1	R72 D2	R521 C4	R741 G4	ZD741 F5	
C503 C3	C681 A4	D601 B2	IC01 D1	Q02 D1	R74 D2	R522 C4	R742 G3	ZD742 E5	
C504 C3	C682 A4	D602 B2	IC02 D2	Q101 B5	R80 D2	R525 B3	R743 E4	ZD747 E5	
C506 C4	C683 A4	D741 G4	IC03 D1	Q102 B5	R81 D2	R529 B3	R744 G5	ZD901 B1	
C507 C3	C685 A4	D742 F5	IC201 D4	Q103 B5	R90 C1	R530 B4	R745 E4	ZD902 B1	
C508 C2	C686 A4	D743 E5	IC202 D3	Q201 D4	R101 B5	R531 D3	R746 G5	ZD903 B1	
C509 B4	C688 A4	D744 E5	IC301 E4	Q501 C3	R102 B5	R532 B3	R747 E5	ZD904 B1	
C510 B3	C741 G3	D801 E1	IC501 C4	Q502 C3	R103 B5	R533 B3	R748 E5		
C511 C3	C743 G4	D802 F3	IC601 A2	Q503 C3	R104 A5	R534 B3	R750 E5		
C512 C3	C744 G5	D803 F3	IC602 B3	Q504 C3	R105 A5	R535 B4	R752 D5		
C513 B4	C745 E5	D804 E1	IC603 A4	Q505 C3	R106 A5	R536 B4	R753 E5		



WIRING DIAGRAM OF MC-84A

(THIS WIRING DIAGRAM OF MC-84A CHASSIS IS APPLICABLE AS FOLLOW MODELS: A/V STEREO, SOUND MAX MODELs)

Service Sheet of MC-84A



ce Sheet of MC-84A

Service Sheet of MC-84A
P/N : 3854VA0037A-S
(990715)

IC901
TDA6107Q

IC01
CXP86324

IC02
24C16

IC202
CD4052B

IC840
KA7805AZ

IC841
KA78R08

IC802
4N35GV

IC804
SE115N

IC801
PC123

IC803
STR-F6654

T802

IC301 TDA8351

< A/V STEREO BOARD >

ICS01
TDA7429S

P611B

P610B

< TELETEXT BOARD >

IC701
SAA5231

IC702
7805

P702B

P701B

< TELETEXT BOARD for PARSI >

IC703
24C04

IC701
SAA5261

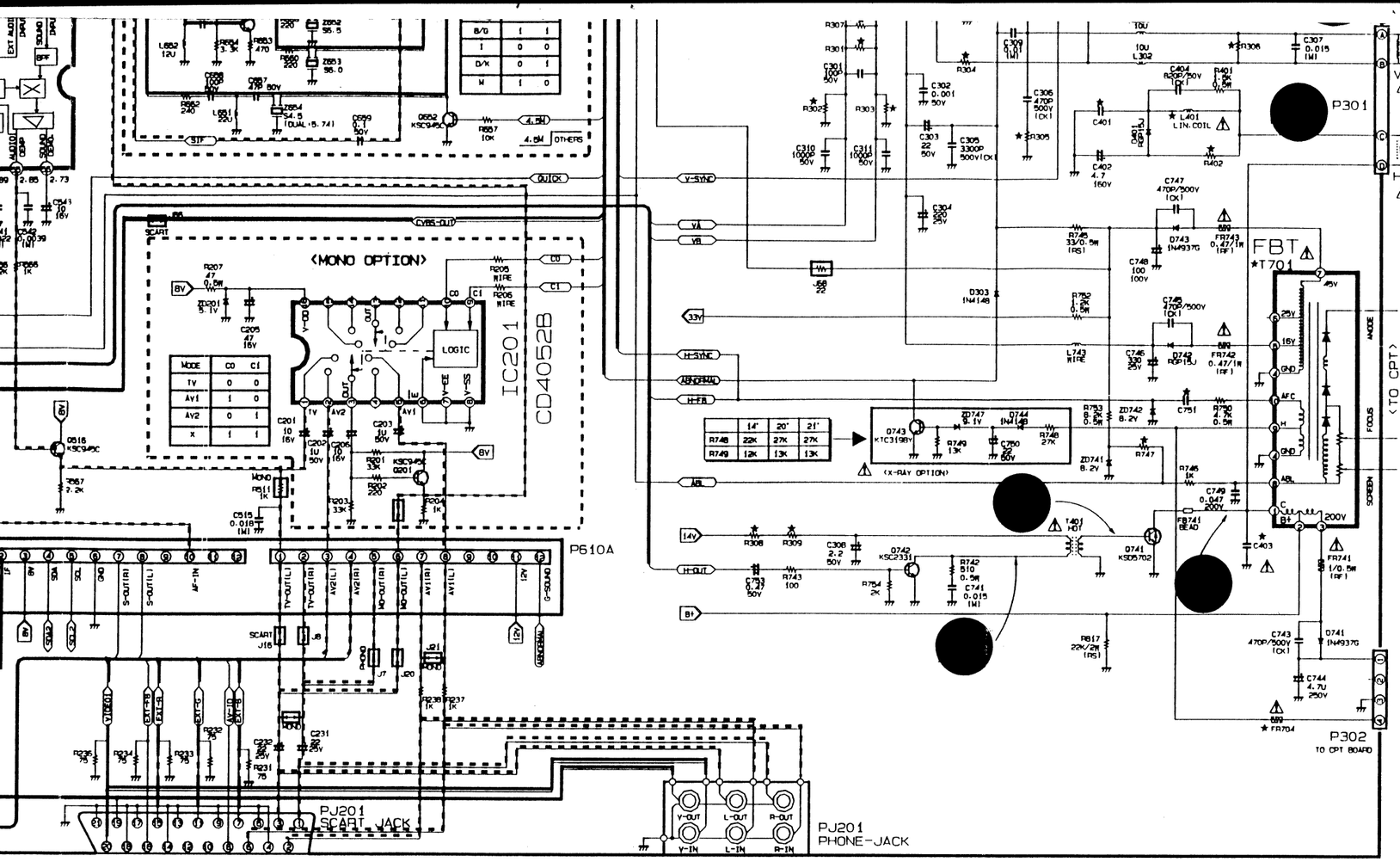
IC704
KIA7442P

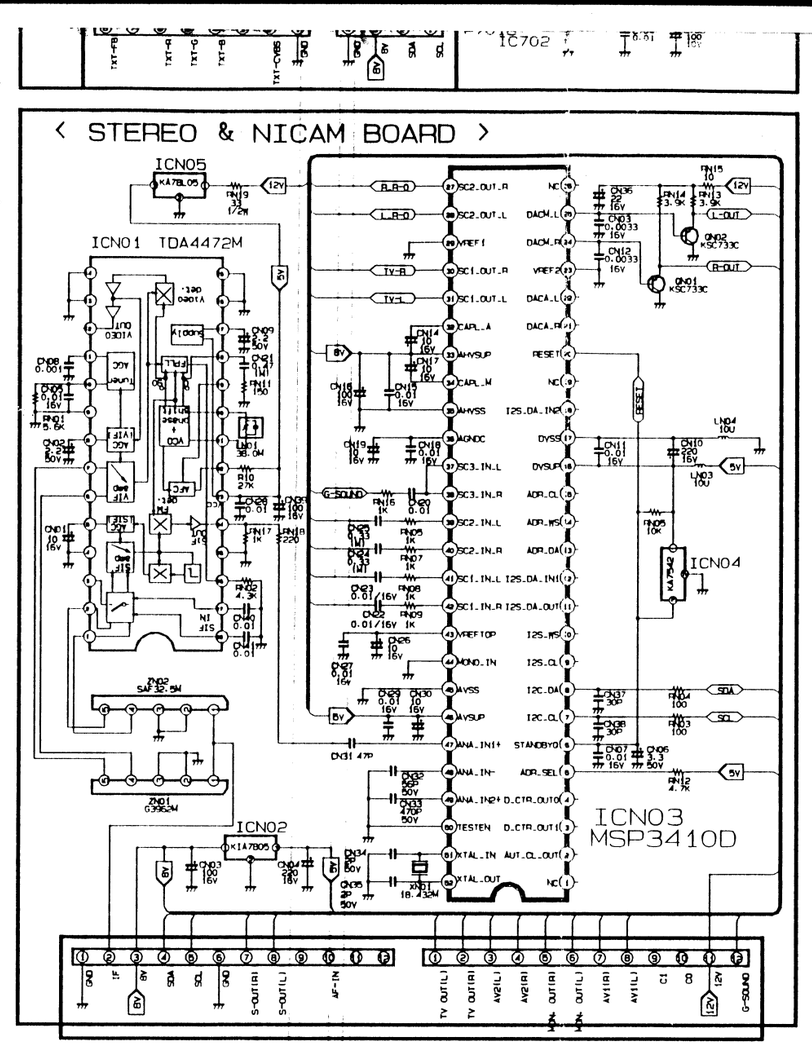
P703

P701B

HOT

COLD





ASION (★ : changing parts)

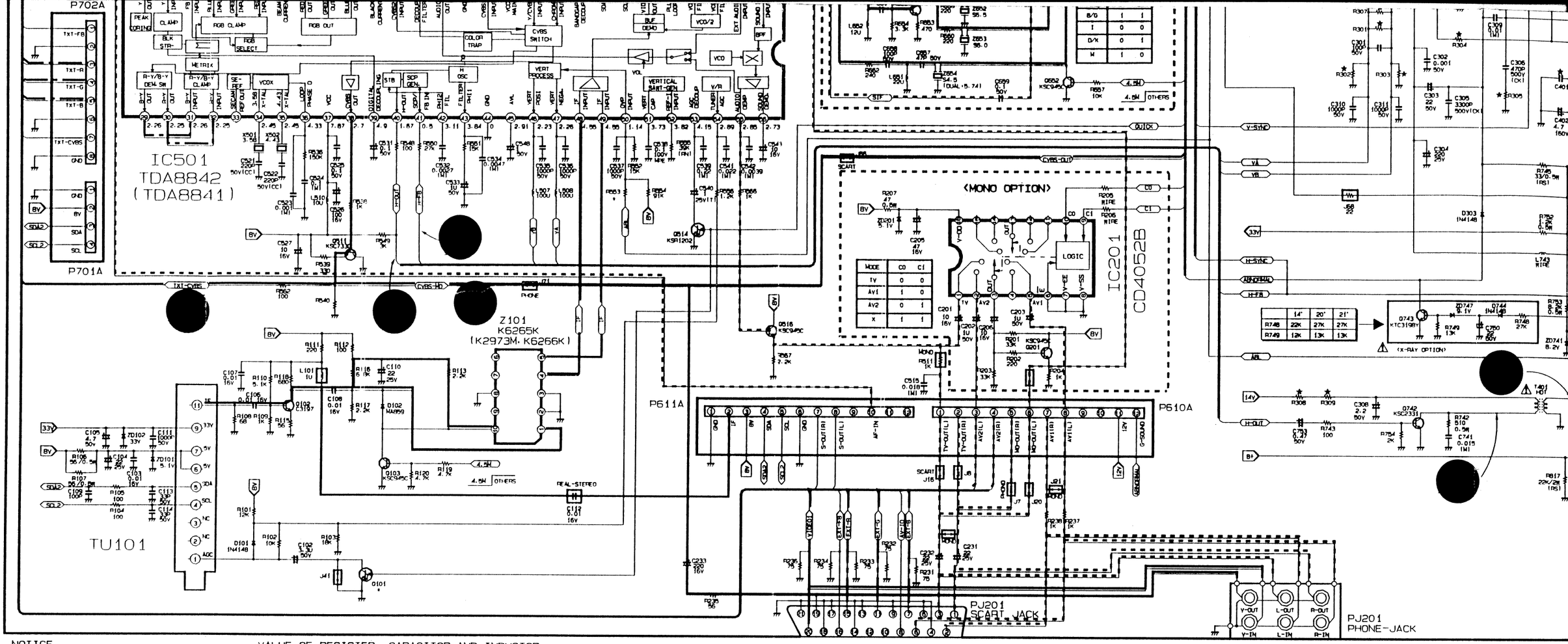
LG 14	ORION 20	ORION 16	ORION 14	NO.	LG 21	LG 20	LG 14	ORION 20	ORION 16	ORION 14	NO.	LG 21	LG 20	LG 14	ORION 20	ORION 16	ORION 14
6174Z-8005F	6174Y-8003B	6174Y-8003A	6174Y-8003A	R747	RD 5.1K	RD 5.1K	RD 5.6K	RD 5.1K	RD 5.6K	RD 5.6K	R402	RS 27K 2W	RS 27K 2W	RS 22K 2W	RS 15K 2W	RS 22K 2W	RS 22K 2W
MPP 0.39/200V	MPP 0.5/200V	MPP 0.39/200V	MPP 0.35/200V	R302	RD 150K	RD 130K	RD 240K	RD 150K	RN 150K	RD 330K	FR901	RF 1.0 2W	RF 2.0 2W	RF 2.4 2W	RF 3.3 2W	RF 3.3 2W	RF 3.3 2W
57uH(150-L01M	70uH(150-L02Y	160uH(150-L02A	160uH(150-L02A	R831	RD 240K	RD 240K	RD 130K	RD 240K	RD 130K	RD 130K	FR703	RF 1.0 2W	x	x	x	x	x
0.0068/1.6KV	0.0075/1.6KV	0.0082/1.6KV	0.0075/1.6KV	R308	RD 75 1/2W	RD 75 1/2W	RD 120 1/2W	RD 75 1/2W	RD 120 1/2W	RD 120 1/2W	FR704	TIN-WIRE	TIN-WIRE	TIN-WIRE	RF 0.47 1/2W	RF 0.47 1/2W	TIN-WIRE
6520VBA001A	6520VBA001A	6520VBA001A	6520VBA001A	R309	RD 75 1/2W	RD 75 1/2W	RD 120 1/2W	RD 75 1/2W	RD 120 1/2W	RD 120 1/2W	TH801	163-012C	163-012C	163-054F	163-012C	163-012C	163-054F
SE115N	SE115N	SE115N	SE115N	R301	RN 3.3K	RN 2.7K	RN 1.5K	RN 2.7K	RN 2.2K	RN 2.0K	R306	RS 220 2W	RS 180 2W	RS 220 2W	RS 220 2W	RS 220 2W	RS 220 2W
RD 220	RD 220	RD 220	RD 220	R303	x	x	x	x	RD 220K	x							
				R304	RN 0.68 1W	RN 1.2 1W	RN 0.68 1W	RN 1.0 1W	RN 1.0 1W	RN 1.0 1W							
				R305	RS 220 2W	RS 180 2W	RD 20 1/6W	RD 20 1/6W	RD 20 1/6W	RD 20 1/6W							
RD 220	RD 220	RD 220	RD 220	R307	RN 3.3K	RN 38K	RN 8.2K	RN 8.2K	RN 43K	RN 33K							
RD 220	RD 220	RD 220	RD 220	C751	CD 0.01	CD 0.01	CD 0.01	CD 0.01	CD 0.01	CD 0.022							

Video (Composite)

Sound

Chroma

EFORM



NOTICE

Since this is a basic schematic diagram.
The value of components and some partial connection are suject to be changed for improvement without notice.

The components marked ⚠ conform VED or IEC guidelines and essential for safe operation of the TV receiver.
While those marked ⚠ are required for correct operation use specified parts only when replacing.

VALUE OF RESISTER. CAPACITOR AND INDUCTOR

1. Resistor is shown in ohm. K=1,000 M=1,000,000
2. Unless otherwise noted in schematic. all capacitor values are expressed in uF.
3. Unless otherwise noted in schematic. all inductor values are expressed in uH.

OBSERVATION OF VOLTAGE AND WAVEFORMS

1. Voltages read with VTVM from point to ground line voltages 180 - 270 volts color bar signal.
2. Voltages reading may vary +/- 20%.
3. The schematic shown is representative only.
4. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
5. Check FINE TUNING. AGC. BRIGHTNESS. CONTRAST and COLOR controls for best picture. make sure that BRIGHTNESS and COLOR controls are in mid position and CONTRAST controls is almost in maximum position.
6. Waveforms are taken using a standard color signal.

TABLE OF INCH CONVERSION (★ : changing parts)

NO.	LG 21	LG 20	LG 14	ORION 20	ORION 16	ORION 14	NO.	LG 21	LG 20	LG 14	ORION 20	ORION 16	ORION 14	NO.	LG 21	LG 20	LG 14	ORION 20	ORION 16	ORION 1
T701	6174Z-8005A	6174Z-8005E	6174Z-8005F	6174Y-8003B	6174Y-8003A	6174Y-8003A	R747	RD 5.1K	RD 5.1K	RD 5.6K	RD 5.1K	RD 5.6K	RD 5.6K	R402	RS 27K 2W	RS 27K 2W	RS 22K 2W	RS 15K 2W	RS 22K 2W	RS 22K
C401	MPP 0.36/200V	MPP 0.39/200V	MPP 0.39/200V	MPP 0.5/200V	MPP 0.39/200V	MPP 0.36/200V	R302	RD 150K	RD 130K	RD 240K	RD 150K	RN 150K	RD 330K	FR901	RF 1.0 2W	RF 2.0 2W	RF 2.4 2W	RF 3.3 2W	RF 3.3 2W	RF 3.3
L401	170UH/50-L02C	170UH/50-L02C	57UH/50-LC1W	70UH/50-L02Y	160UH/50-L02AX	160UH/50-L02A	RB31	RD 240K	RD 240K	RD 130K	RD 240K	RD 130K	RD 130K	FR703	RF 1.0 2W	x	x	x	x	x
C403	0.0073/1.6KV	0.0075/1.6KV	0.0068/1.6KV	0.0075/1.6KV	0.0082/1.6KV	0.0075/1.6KV	R308	RD 75 1/2W	RD 75 1/2W	RD 120 1/2W	RD 75 1/2W	RD 120 1/2W	RD 120 1/2W	FR704	TIN-WIRE	TIN-WIRE	TIN-WIRE	RF 0.47 1/2W	RF 0.47 1/2W	TIN-WI
P901	6520VBC001A	6520VBC001A	6520VBA001A	6520VBA001A	6520VBA001A	6520VBA001A	R309	RD 75 1/2W	RD 75 1/2W	RD 120 1/2W	RD 75 1/2W	RD 120 1/2W	RD 120 1/2W	TH801	163-012C	163-012C	163-054F	163-012C	163-012C	163-05
IC804	SE115N	SE115N	SE115N	SE115N	SE115N	SE115N	R301	RN 3.3K	RN 2.7K	RN 1.5K	RN 2.7K	RN 2.2K	RN 2.0K	R305	RS 220 2W	RS 180 2W	RS 220 2W	RS 220 2W	RS 220 2W	RS 220
R901	RD 220	RD 220	RD 220	RD 220	RD 220	RD 220	R303	x	x	x	x	RD 220K	x							
R902	RD 220	RD 220					R304	RN 0.68 1W	RN 1.2 1W	RN 0.68 1W	RN 1.0 1W	RN 1.0 1W	RN 1.0 1W							
R903	RD 220	RD 220					R305	RS 220 2W	RS 180 2W	RD 20 1/6W	RD 20 1/6W	RD 20 1/6W	RD 20 1/6W							
R904	-	-	RD 220	RD 220	RD 220	RD 220	R307	RN 3.3K	RN 38K	RN 8.2K	RN 8.2K	RN 43K	RN 33K							
R905	-	-	RD 220	RD 220	RD 220	RD 220	C781	CD 0.01	CD 0.01	CD 0.01	CD 0.01	CD 0.01	CD 0.022							